Lumleian Lectures
ON THE
ÆTIOLOGY OF PHTHISIS.

Delivered at the Royal College of Physicians,

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LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—The ætiology of phthisis covers so wide a field, requires for its complete discussion so many different lines of inquiry, so many different methods of research, that it would be absurd to attempt to treat it in detail within the time at my disposal here. Nor was such my intention in adopting those words for the title of these lectures. It was convenient to have a short heading, and yet one which would allow me the fullest liberty to choose from any quarter whatever facts or arguments there may be available for my more limited purpose. Far from attempting an exhaustive treatment of so vast a subject, I shall regard it from one comparatively narrow point of view—viz., the communicability of the disease immediately or mediately from the sick to the healthy. Is or is not phthisis contagious? And here it is my duty at once to confess myself to be an anti-contagionist, and to admit that, in spite of the sincerest wish and endeavour to state the case fairly and without prejudice, my argument must have been, in form if not in matter, more or less biased by its being framed rather to attack a given proposition than to establish any other in its place. This question of contagion, wherever it arises, whether in the case of phthisis or of other diseases, has rarely been discussed with judicial calmness. The practical issues are so important, and appeal so strongly to the imagination, whilst facts lend themselves so readily to contradictory theories and *ex parte* treatment, that the opposite sides too often deal out to each other but scant courtesy or even justice. And thus the debate is carried on by arguments, unsound and tainted from the very first, by ingeniously manipulated statistics, by facts incompletely given, and by utterly irrelevant appeals to feeling. It may be, in part, from this emotional element in the controversy that the very idea of contagion has often been rejected in cases which seem to us, now, scarcely to admit of even speculative doubt. Thus Dr. John Armstrong hotly denied the contagiousness of typhus fever in his "Lectures on the Morbid Anatomy, Nature, and Treatment of Acute and Chronic Diseases" (posthumous edition by Joseph Rix, 1834), and this, too, in cases where glandular swellings and a petechial rash were present, and which it is impossible to believe to have been cases of typhoid fever. I am well aware that very different views were held of Dr. Armstrong's character and of the value of his opinions; but, by the testimony of friends and foes alike, he was the most popular teacher of his day. A careful observer, who had enjoyed special opportunities for studying fevers, and yet, in so plain a case as the spotted fever of London and Edinburgh, he renounced his belief in its contagiousness.

At the very outset of the inquiry a difficulty confronts us which has never been satisfactorily met, which I, at any rate, cannot hope to remove, but over which I must somehow contrive to stumble. It is the definition of phthisis. All that I can do is to state the sense which I myself attach to the term "phthisis," and to beg that my argument may be judged of by reference to that, and not to any other description. Of course it must be so framed as not to beg the question under discussion, and must therefore be imperfect. By phthisis, then, I mean a specific disease characterised anatomically by a new growth, which may wear very different aspects at different periods of its existence, and in different organs or tissues; especially according as it is found in the interior of organs, or as it presents upon a free, serous, mucous, or cutaneous surface. This new growth may occur in almost any organ or tissue, but does so most frequently in the lymphatic tissues, and in the lungs. Generally it proceeds from numerous different points, the growths from which may or may not coalesce, thus leading, e.g., in the lungs, to two different types of lesion—viz., miliary tuberculosis, and to more or less extensive areas of infiltration and consolidation, with softening and its results. Further, in the case of the lungs, this new growth does not follow the general law of distribution or localisation of pulmonary diseases; it has some special affinity for the apices, and descends in levels, not by lobes, attacking the upper portion of the lower before it has reached the base of the upper lobes. It kills by the disturbance and disorganisation which its presence works in some vital organ, generally the lungs, and thus the disease answers roughly to the old definition of Joannes Marifoldus in the fourteenth century, in his Breviarum Bartolomæi, the earliest medical work by any member of the staff of the St. Bartholomew's with which I am acquainted, "Ptisis est ulcus pulmonum cum consumpsione totius corporis."[1] But its clinical history is that of a general rather than of a local disease, the constitutional symptoms, especially in the earlier stages, often bearing no definite relation to any ascertainable structural lesion. In the words, still true, of Dr. P. M. Latham, "Pulmonary consumption is no more than a fragment of a great constitutional malady, which it would be in vain to think of measuring by the stethoscope, and which it belongs to a higher discipline than any mere skill in auscultation rightly to comprehend."[2]

I know only too well that this definition, if I may call it so, bristles with controversies of fact and of theory. Let it be taken, then, as the expression of my belief that consumption, phthisis, tuberculosis, is a specific disease occurring in both acute and in chronic forms; that it is not a mere catarrhal inflammation, a peri-bronchitis, a chronic apex pneumonia, but a disease as distinct in its nature as scarlatina or as gout. And, further, let me here add that a very large, if varying, proportion of deaths caused by chronic lung diseases are rightly attributed to it. No doubt, it is impossible to get any large statistics of tubercular phthisis which are not more or less vitiated by the intrusion of non-tubercular cases; but the broad general conclusions which may be drawn from those statistics are trustworthy, and, perhaps, in the presence of other than tubercular cases is to be found the explanation of some of the apparent anomalies and inconsistencies which make it so difficult to formulate the general laws of its causation and natural history.

The question of the contagiousness of phthisis must be beset by peculiar difficulties, for in no other case has the discussion raged so long without even yet leading to any generally accepted conclusion. To this audience it is unnecessary for me to mention the well-known names of those who, at different periods, have taken, some one, some the other side in the dispute. The recent discovery of the tubercle bacillus, and the consequent addition to the old stock of arguments of a fresh fact of the utmost importance, must be my excuse for venturing to bring so trite a subject before you. It seemed to me all the more allowable to do so because the bacillus has been looked upon by many as a conclusive proof of the doctrine of contagion, in its most extreme form; and, as often happens when some striking discovery, some fruitful generalisation, has just been made, a strong tendency has been shown to treat the older views and observations with contempt. In order to estimate the influence of our knowledge of the bacillus upon the doctrine of phthisis, I shall endeavour, first, to state the position of that doctrine, with the value of the facts on which it was based, prior to Dr. Koch's discovery; and, secondly, to discuss the modifications which that discovery may render necessary in the older views. In this way only can we expect to arrive at a safe conclusion. In carrying out this plan, however, I must ask your forbearance, when, as must often be the case, you find me traversing well-trodden paths. An advocate would surely do his duty in strange fashion who omitted to state an argument because it was an old one and hitherto unanswered.

It will be convenient to consider first one argument in favour of contagion, apparently of great weight, which was very strongly stated by Dr. William Budd of Clifton in his famous Memorandum on Phthisis, which appeared in THE LANCET for Oct. 12th, 1867. He says: "Among the data relating to geographical distribution the following striking facts may be here mentioned:—1st. When the South Sea Islands were first discovered phthisis did not exist there. Since the aborigines have come into intimate contact with Europeans the disease has not only made its appearance among them, but has

[1] Anecdota Oxoniensia, vol. i., p. 1, 1882.
[2] Latham's Works, New Syd. Soc., vol. ii., p. 171.

become so wide-spread as to threaten their extermination. The contrast, between original entire immunity and present extreme fatality, is very striking, and can only be rationally explained by the importation of a new and specific morbific germ. Try every other supposition, and the facts are inexplicable; make this one supposition, and they are at once explained. 2nd. The late Dr. Rush of Philadelphia, who made very accurate inquiries to determine the point, satisfied himself that when America was first discovered phthisis was unknown among the native American Indians. Now it is very fatal to them. The very significant contrast here exhibited between the past and present history of these two races, in respect of phthisis, is exhibited at once, and at the present time, among the negro race in Africa, in different parts of the area of that great continent. It is well known that negroes are peculiarly liable to phthisis. Now, everywhere along the African seaboard, where the blacks have come into constant and intimate relations with the whites, phthisis causes a large mortality among them. In the interior, where intercourse with the whites has been limited to casual contact with a few great travellers or other adventurous visitors, there is reason to believe that phthisis does not exist. Dr. Livingstone and other African travellers have given me the most positive assurances on this point." It would be impossible to exaggerate the importance of this statement if it could be established. Fortunately or unfortunately, this seems to be impossible. There are errors in it both of fact and of inference. To take first the case of America. The oft-quoted authority of Dr. Rush, when analysed, is very far indeed from being decisive of the question of the importation of phthisis into North America. It is true that in his "Inquiry into the Natural History of Medicine among the Indians of North America, and a comparative view of their Diseases and Remedies with those of Civilised Nations," he does not mention consumption. "Fevers," he says,[3] "constitute the only diseases among the Indians"; and under the head of these fevers he mentions specially "pleurisies and peri-pneumonias." On p. 21 he asserts that small-pox and venereal disease were communicated to the Indians in North America by the Europeans; but he did not, so far as I can find, take the same view of consumption. In point of fact, what Dr. Rush states is not merely that consumption was unknown in the north-east of the New World before its discovery by Columbus, but that it was still unknown among the Indians at the time when he was writing in the latter half of the eighteenth century—i.e., nearly three centuries after Columbus consumption had not been communicated by Europeans to the natives. He gives not the slightest hint of believing in its foreign origin, but regards it, even in its incidence on the whites, as one of the results of advancing civilisation. Thus he says, in "Thoughts on Consumption":[4]—

"I shall begin my observations upon the consumption by remarking: 1. That it is unknown among the Indians in North America. 2. It is scarcely known by those citizens of the United States who live in the first stage of civilised life, and who have lately obtained the title of the 'first settlers.' The principal occupations of the Indian consist in war, fishing, and hunting. Those of the first settler are fishing, hunting, and the laborious employments of subduing the earth, cutting down forests, building a house and barn, and distant excursions in all kinds of weather to mills and courts, all of which tend to excite and preserve in the system something like the Indian vigour of constitution. 3. It is less common in country places than in cities, and increases in both with intemperance and sedentary modes of life. 4. Ship and house carpenters, smiths, and all those artificers whose business requires great exertions of strength in the open air in all seasons of the year are less subject to this disorder than men who work under cover, and at occupations which do not require the constant action of their limbs. 5. Women, who sit more than men, and whose work is connected with less exertion, are most subject to the consumption."

It is clearly unnecessary to draw from this passage any more stringent conclusion than this—that the climate of North America had not sufficed to prevent the development of an hereditary tendency to phthisis among certain of the settlers living under conditions which would have produced the same effect in Europe. It must further be remembered that Dr. Rush writes of the savage tribes of the East and North; but there is reason to believe that phthisis existed in Mexico before the arrival of Europeans. H. H. Bancroft,[5] speaking of the Nahua nations, the leading tribes among the Aztecs, says: "The diseases most prevalent were acute fevers, colds, pleurisy, catarrh, diarrhœa, and in the coast districts intermittent fevers, spasms, and consumption aggravated by exposure."

Even if this statement is not literally true, if some other disease has been mistaken for phthisis, it is still an apt illustration of the uncertain character of the evidence relating to the diseases of the American aborigines. Yet phthisis might easily exist among barbarous races and escape the notice of even the most competent observer. A savage stricken with phthisis would rarely live to develop the later and more striking features of the disease. The value of his life in the earliest stage would be a vanishing quantity, like the "prairie value" of land. With the first serious failure in strength of lung or of muscle the struggle for existence would be promptly decided against him. In the words of Dr. Rush, speaking of deformed children, "The severity of the Indian manners destroys them." And thus civilisation, with its care for the sick and weakly, allowing time and opportunity for the full evolution of the disease, would sometimes appear to have introduced that which it had only preserved and, so to speak, cultivated. An almost necessary consequence of this artificial survival of the unfit would be the spread of the phthisical taint in virtue of its hereditary character (to say nothing of the unwholesome influences of a nascent civilisation), and a great increase, both absolute and relative, in the number of cases of phthisis. From this point of view it is interesting to note even indistinct traces of the existence of phthisis among the people who had attained the highest degree of civilisation in the New World, who kept trustworthy records and even established hospitals for the sick. Nothing can be more unsatisfactory than the reports of the first visitors to any newly discovered land on the diseases of its inhabitants. The writers themselves seem to have been very often singularly unfitted for such a task, and the opportunities at the disposal even of the best qualified observer most insufficient. It could not be possible to learn much during a stay of a few weeks, or it may be only days, among a newly found people speaking an unknown and unwritten language. Taking the three vast regions specially mentioned by Dr. Budd, regions embracing among them nearly every known variety of climate and of natural productions, I trust I have sufficiently illustrated the difficulty, if not impossibility, of proving that phthisis was introduced into America from Europe. In the Pacific the first European visitors of many of the islands were South Sea whalers, escaped convicts, or, at best, intelligent sailors, like Mariner, without any special medical knowledge. Certainly not persons well qualified to conduct a very difficult scientific inquiry. It is impossible in the absence of trustworthy records to come to any certain conclusion. It is easy enough to meet with statements on either side. A friend, a member of the Melanesian Mission, who has known many of the islands well for some years past, assures me that he believes consumption to have existed among them before the arrival of Europeans. At any rate, twenty years ago he saw natives dying of what seemed to him to be consumption in islands which had been visited only by the mission ship, in which no infection had been conveyed. The case is very different with regard to a highly contagious disease like syphilis. There seems little room for doubt that it was first brought to the islands by European vessels, and that it is still being constantly reintroduced. Unhappily it is impossible to deny the great mortality now caused by phthisis among the Melanesians. In the mission establishment on Norfolk Island there are about 150 young natives who stay there for one or two years to be trained as teachers. Even there the mortality from phthisis is about 2 per cent. annually, and in the islands themselves it is probably much higher. But I hope to show that this great and probably increasing mortality is no proof that the disease was originally imported by Europeans. In the case of Africa it has to be remarked that, although very few white men penetrated into its interior, regular caravan routes have existed for ages, by which—e.g., starting from the Mediterranean coast with its thickly set European colonies—any disease so contagious as some believe phthisis to be must have been spread over the whole interior even before the fall of Carthage. Such a disease once started would have travelled surely, if slowly,

[3] London edition of 1789, p. 20. [4] Op. cit., p. 159. [5] Pacific States, vol. ii., p. 592.

from one trade centre to another. By the medium of neutrals it would pass freely between hostile tribes and penetrate into the remotest districts, so that the distribution of phthisis in Africa, its prevalence on the coast, and its rarity inland, its being confined to certain parts only of wide regions traversed for centuries by largely used trade routes, and inhabited by a most susceptible race, is a strong argument not for, but against, its contagiousness. If its spread depends upon the conveyance of any material germ along the lines of human intercourse, it is difficult to believe that the interior of Africa could have escaped. In a general way, a better explanation of its unequal incidence is to be found in the fact that in other countries too, where phthisis has been long known and where no question of restricted intercourse arises, it still prevails to a much greater extent near the sea than in the interior. Further, it is not true that phthisis rages among the natives along the entire coast line. There are singular exceptions to this general rule, even in the case of districts such as the Gold Coast, long the seat of large foreign trade; exceptions which it is very difficult to explain on the contagion theory. Granted, however, for the sake of argument that it could be established as a certain fact that phthisis has made its appearance among a certain number of savage tribes after the arrival of Europeans, and that it was unknown before that event, surely the importation of a new and specific morbific germ is not the only rational explanation which can be offered. If, for the time, we adopt the view that phthisis is a diathetic disease, the outcome of unhealthy conditions of life, especially those connected with the two prime necessities of mankind, shelter from the weather and food, then it is well known that the first contact of civilisation with barbarism exposes the savage to many unwholesome influences. He is tempted to indulge to excess in alcoholic liquors, often of the vilest quality; he forsakes his old free life of hunting or fishing for one of comparative inactivity and indolence, hanging about the white settlements and seeking shelter in the most insanitary of huts. What room for surprise is there if, under such circumstances, he becomes liable to new forms of diathetic disease? If, however, we accept the doctrine, the true doctrine, that phthisis requires for its production not only predisposition, but also the action of an external agent, probably organic, then a reference to its world-wide distribution on the one hand, and on the other to the complete immunity from it which some races, so long as they follow certain modes of life, enjoy, even though, like the North American Indians in Dr. Rush's time, they are in contact with phthisical communities; such a reference will make the supposition that the impaired vigour of the savage has subjected him to external agents always present, although hitherto impotent, at least as probable as that of an "imported germ." In the case of the South Sea Islands the coming of the white men was also followed before long by a great change of diet, by the introduction not only of stronger alcoholic drinks, but also by that of pork in place of their former uncertain supply of flesh food.

The introduction of European clothing, also, is attended by grave dangers to health, especially those arising from the intermittent way in which the natives use it, not only at first, but even when civilisation has made considerable progress among them. A ludicrous instance of this fell under the notice of a near relation of my own who settled in New Zealand nearly thirty years ago. Soon after landing he went up the country in search of a suitable district for a sheep-run, taking with him a Maori, as guide and porter. This man, very lightly clad, carried with him a large parcel of which he took the utmost care, but for some days was never seen to open it. At last Sunday came round, and then he appeared dressed in the contents of his parcel—namely, a full dress suit of black cloth, with white shirt and necktie. On the Monday he resumed his scanty rags. It is admitted on all sides that civilisation at first brings to bear upon the savage some of the most powerful predisposing causes of phthisis, causes which many of us would have said a few years ago are sufficient to produce it in certain constitutions. Surely, then, it is a begging of the question to say that the facts cannot be explained except on the "imported germ" theory; the same statement might be made with equal truth of gout or of ague.

I must apologise for having dwelt at perhaps too great length on this historico-geographical argument, but it forms so important a part of the contagionist statement; it has been regarded as so decisive of the whole question; it made so deep an impression upon myself until in self-defence I was driven to examine the grounds on which it rested that it seemed necessary to begin by dealing with it. It is also a most insidious argument, one which lies outside ordinary medical studies, and is often stated confidently and accepted thoughtlessly. If the history of the earliest appearance of phthisis amongst savages can only be explained on the theory of contagion, there is an end of the matter. All that remains is to endeavour to discover the nature of the contagion, and the mode in which it gains access to its victims, whether in New Zealand or in London. But I trust I have shown good reason for believing that this is not the case; that the facts have come to us in so imperfect and distorted a form as to be worse than useless; for, whilst they can be made to harmonise readily with either the diathetic or the contagion theory, they are absolutely worthless for the proof of either.

I shall now pass briefly in review the statements which have been made, with more or less truth, as to the influence of certain conditions on the prevalence of phthisis. It is impossible to give in detail the enormous number of facts by which these statements have been supported; but it will be my endeavour, by fairly chosen illustrations, to indicate the kind and value of the evidence on which they rest, and their bearing on the doctrine of contagion.

The geographical distribution of phthisis, the degree in which it depends upon climate, as determined by latitude or by isothermal lines, admits only of the most general treatment. It exists in all climates—tropical, temperate, and arctic,—and apparent exceptions to this serve only to bring into strong relief the much greater importance of local than of general influences. According to the common statement, it is more prevalent in the tropics, and, as far as absolute number of cases is concerned, this is no doubt true, for the population is many times more dense there than in the north. Whether it is relatively more frequent is a very different question; the final answer to which will require vast statistics, yet to be compiled, the labour and the record of many generations. But there are facts which prove that arctic rigours do not prevent consumption.

Moose, or Moosonee, a trading station on the shore of Hudson's Bay, is in the latitude of London, but enjoys a typical arctic climate—viz., a short hot summer and a seven or eight months' winter, with the thermometer frequently as low as −40° F. Mr. Walter Haydon, just returned from five and a half years' service there, has favoured me with the following table of causes of death from 1811 to June, 1882. It illustrates both the scanty population of the North and the extreme difficulty of getting facts, even under apparently favourable circumstances; for the register, though an official one, is, he says, imperfect and badly kept. Of 162 entries of the cause of death (an average of a little over 2·4 a year), 68 were due to consumption; 22 to old age; 16 to cold and starvation; 14 to whooping-cough; 7 to bronchitis; 6 to teething; 15 to paralysis, epileptic fits, and peritonitis (5 to each); 3 to gastric fever; 2 to influenza; 6 to apoplexy, hydrocephalus, hemiplegia, strangulated hernia, croup, heart disease (1 to each); 3 were infants under two days old. It is interesting to observe the presence of some members of the class of "specific febrile diseases" dependent upon morbid poisons and the absence of others—e.g., small-pox, typhus, and scarlet fever. Mr. Haydon further told me that during his stay there he used nine different consignments of vaccine lymph, all without success. This he was disposed to attribute to their having all reached him during the winter, and thus been exposed to intense cold for some weeks. Of the cases of phthisis which he himself observed all occurred among the native Indians or the half-breeds, and their symptoms were the same as among ourselves—cough, hæmoptysis, night sweats, diarrhœa; in chronic cases, "clubbed nails." The duration varied also from a few months to years. Syphilis and gonorrhœa are unknown among the natives. The greatest possible care is taken to prevent their introduction, and as the ship which brings supplies visits the station only once a year, or, not unfrequently, in consequence of the ice, only once in two years, this care is effectual. The lung disease therefore, which causes such large mortality among the natives is not syphilitic phthisis. Here, then, is an arctic climate where the percentage of phthisis in the general death-rate is enormous, and where it occurs almost exclusively among the natives. On the other hand, there are tropical countries where phthisis is all but unknown among the natives. This is the case in Senegambia and on the Gold Coast, within eight degrees of the equator. A fellow student of my own, Dr. Thomas Jones of Mansfield, spent five years on the

Gold Coast. He tells me that among 4000 cases of sickness annually he never saw a single case of phthisis in a native. It is, however, of frequent occurrence among the West Indian soldiers stationed there and their families, although in their own country they are said to possess an almost complete immunity from it. I wish to draw your special attention to this and similar exceptions to the general statements which have been made as to the conditions which favour or arrest the spread of phthisis, for I believe that these exceptions furnish a most useful clue to the nature of the disease.

In 1879 the Director of the Medical Department of the Norwegian Government, Dr. L. Dahl, published a pamphlet on the distribution of phthisis in Norway, in which he gives statistical proof that it is most destructive in the extreme south and in the extreme north, regions separated by more than ten degrees of latitude, but which, with many differences, agree in one respect—viz., that their climate is much more severe than that of the parts lying between them. There is, however, a very striking exception in the district of Röros, one of the highest and coldest in the country, and also one of the most phthisical, whilst the town of Röros in its centre is entirely free. But this most curious anomaly will come more conveniently under discussion in connexion with the effect of altitude above the sea-level. On the whole the facts, so far as they are known, which bear upon the relation between climate and phthisis, do not justify any more distinct conclusion than this—viz., that, as a matter of fact, phthisis may, and does, exist in any climate, and that the influence of climate, whatever it may be, so far as it depends upon latitude, is but slight, and constantly modified or over-ridden by other more potent conditions. Further, it is probable that phthisis is relatively as well as absolutely more common in the tropics than in the extreme north, but this cannot be looked upon as having been as yet certainly established.

About the influence of elevation above the sea-level in diminishing the phthisis death-rate no reasonable doubt exists; the higher we ascend the greater is the immunity from phthisis, until at last it becomes almost, if not quite, complete. But the conditions on which this result depends are by no means equally clear. It cannot be the mere effect of the climate proper to the elevation, so far as that effect can be judged of by its influence upon non-microscopical plant or animal life. For in the North phthisis prevails in regions the home of a flora, among which on the Alps and Andes it would be practically unknown. It is difficult to believe that it can be due to the difference in the level of subsoil water at varying heights on a steep mountain side, when we see that not only slopes but high mountain valleys, which often contain lakes, are equally exempt. Is it due to diminution of atmospheric pressure, or to freedom of the air from impurities common at lower levels? My own belief is that this last is the real explanation; and that, as Professor Tyndall's flasks remained clear and unaltered, when freely exposed to the air at the Bel Alp in the absence of the bacillus of putrefaction, so too at certain heights the micro-organism, whatever it may be, which excites phthisis is no longer met with.

In Norway phthisis, as already stated, is most prevalent when the winter is most severe, and to this rule the district of Röros as a whole forms no exception. But the town of Röros escapes, although it is probably the coldest inhabited place in the country from its situation on a dreary and inclement plateau where winter prevails for fully eight months in the year. From inquiry, which I had the opportunity of making last summer, I have no doubt of the reality of this immunity as far as the town itself is concerned, and it is generally attributed to its elevation, for it is the highest as well as the coldest town in the country. But on a closer scrutiny of the facts of the case this explanation seems to me untenable. Röros lies in an elevated district on the watershed between the river Glommen and the streams flowing to the north and east, but not by any means on its highest point. The whole district is an elevated one, there are in it no deep valleys but little above the sea-level; and it is difficult, on the direct contagion theory impossible, to believe that a slight difference in elevation—sometimes in one, sometimes in the other direction—should preserve the town from phthisis in the midst of a deeply infected neighbourhood, especially when it is remembered that the deep narrow level valleys at the head of the west coast fjords—e.g., the Hardanger and Sogne fjords escape, by comparison, almost entirely. It may, however, be that in the industry of the mining town of Röros—i.e., copper-smelting—is to be found the cause of this absence of phthisis. At any rate, in this connexion it is interesting to note that in the West Indies, in the sickly island of St. Lucia, "the sulphureous localities are its only salubrious localities; that, immediately round sulphur works and factories for making gunpowder and sulphuric acid, the vegetation and the ague disappear together, and that in Cornwall ague is said to have been almost unknown in the neighbourhood of copper-smelting works. However this may be, the district of Röros supplies a twofold exception to general statements about phthisis. First, the district as a whole, although elevated, is extremely phthisical; and, secondly, notwithstanding this infection, a portion of it is almost entirely free. Another exception is to be found in the prevalence of phthisis in Spain on the high plateaux of Castile and Estremadura.[6] But whilst in the case of climate it is difficult to say what is the rule and what the exception, there is no doubt that, as regards altitude, the prevalence of phthisis at considerable heights,

Table showing broadly the Connexion between Sanitary Improvements and Fluctuations of Mortality from certain causes. (*Op. cit., p. 52 et seq.*)

Name of place.	Reduction in phthisis mortality.	Effect of drainage.	Reduction in total mortality.	Reduction in typhoid mortality.	Reduction in diarrhœa mortality.	Reduction in measles mortality.	Reduction in scarlatina mortality.	Reduction in lung disease mortality.
	Per cent.		Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Salisbury	— 49	Much drying	— 9	— 75	— 60	— 11	+ 300	+ 3
Ely	— 47	Much drying	— 14	— 56	+ 7	— 90	+ 220	+ 12
Rugby	— 43	Some drying	— 2½	— 10	+ 220	— 43	+ 0	— 10
Banbury	— 41	Much drying	— 12½	— 48	— 45	+ 160	— 37	+ 0
Worthing	— 36	Some drying	0	+ 22	+ 16	+ 80	+ 105	+ 26
Macclesfield	— 31	Much drying	— 20	— 48	— 3	— 30	— 45	+ 14
Leicester	— 22	Drying (see text)	— 4½	— 48	+ 20	— 55	+ 180	+ 28
Newport	— 32	Local drying	— 23	— 36	— 40	— 33	+ 18	— 15
Cheltenham	— 26	Some drying	— 4½	— 37	— 16	+ 50	— 30	+ 3
Bristol	— 22	Some drying	— 1½	— 33	+ 40	— 50	+ 43	— 2
Dover	— 20	Local drying	— 6	— 36	— 26	+ 50	— 64	+ 14
Warwick	— 19	Some drying	— 7½	— 52	+ 40	+ 50	— 25	— 22
Croydon	— 17*	Much drying	— 18½	— 63	— 30	— 62	— 20	*
Cardiff	— 17	Much drying	— 24	— 40	— 75	— 25	+ 90	— 5
Merthyr	— 11	Some recent drying	— 13	— 60	— 45	— 7	+ 60	+ 16
Stratford	— 1	Some local drying	— 7	— 67	— 50	+ 190	+ 95	— 27
Penzance	— 5	No change	0	+ 6	+ 75	— 60	+ 20	+ 28
Brynmawr	+ 6	No notable change	— 11	— 56	— 5	— 45	— 33	+ 10
Morpeth	— 8	No change	— 5	— 40	+ 70	— 45	— 46	+ 23
Chelmsford	+ 0	Slight drying	+	+ 5	+ 14	— 53	+ 280	+ 24
Penrith	— 5	No change	0	— 55	+ 25	+ 30	— 45	— 9
Ashby	+ 19	Some drying	— 9	— 56	+ 100	†	†	+ 0
Carlisle	+ 10	Drying, with local defects	— 7	— 2	+ 10	— 9	— 25	+ 23
Alnwick	+ 20	No drying	+ 6	— 26	— 33	+ 7	+ 2	+ 44

* This includes phthisis and lung disease.

† None in previous seven years; not much afterwards.

[6] Journal de la Soc. de Statistique de Paris, October, 1867. Répartition Géographique de la Phthisie Pulmonaire, par M. le Docteur Gross of Berne.

although instances of it do exist, *is* exceptional. We shall have to consider again the effects of these exceptions on the doctrine of phthisis, but it would be a waste of time to dwell longer now on the general law of altitude, or to parade a long list of writers whose labours have established it. It must, however, be borne in mind that a residence at a high altitude not only prevents phthisis, but also cures many persons suffering from it.

Dampness of soil.—In the Ninth Report of the Medical Officer of the Privy Council for the year 1866 appeared Dr. Buchanan's classical report "On the Results which have hitherto been gained in various parts of England and Wales by Works and Regulations designed to promote the Public Health." In this he establishes the fact, at that time an unexpected one, that the drying of the soil effected by sewerage works is generally followed by a great reduction in the mortality from phthisis. (See Table on previous page.) In the following year Dr. Buchanan submitted another report, "On the Distribution of Phthisis as affected by Dampness of Soil."[7] The conclusions arrived at here are so important to my argument, that I may be permitted to remind you of them. They are as follows:—

"The following general conclusions, then, result from the present inquiry:—

"1. Within the counties of Surrey, Kent, and Sussex there is, broadly speaking, less phthisis among populations living on pervious soils than among populations living on impervious soils.

"2. Within the same counties there is less phthisis among populations living on high-lying pervious soils than among populations living on low-lying pervious soils.

"3. Within the same counties there is less phthisis among populations living on sloping impervious soils than among populations living on flat impervious soils.

"4. The connexion between soils and phthisis has been established in this inquiry—(*a*) by the existence of general agreement in phthisis mortality between districts that have common geological and topographical features of a nature to affect the water-holding quality of the soil; (*b*) by the existence of general disagreement between districts that are differently circumstanced in regard of such features; and (*c*) by the discovery of pretty regular concomitancy in the fluctuation of the two conditions, from much phthisis with much wetness of soil, to little phthisis with little wetness of soil. But the connexion between wet soil and phthisis came out last year in another way, which must here be recalled—(*d*) by the observation that phthisis had been greatly reduced in towns where the water of the soil had been artificially removed, and that it had not been reduced in other towns where the soil had not been dried.

"5. The whole of the foregoing conclusions combine into one—which may now be affirmed generally, and not only of particular districts—that wetness of soil is a cause of phthisis to the population living upon it.

"6. No other circumstance can be detected, after careful consideration of the materials accumulated during this year, that coincides on any large scale with the greater or less prevalence of phthisis, except the one condition of soil.

"7. In this year's inquiry, and in last year's also, single apparent exceptions to the general law have been detected. They are probably not altogether errors of fact in observation, but are indications of some other law in the back ground that we are not yet able to announce."

Some years earlier, in 1862, Dr. Henry J. Bowditch delivered, at the annual meeting of the Massachusetts Medical Society, an address "On Consumption in New England and elsewhere, or soil moisture one of its chief causes." In this he anticipates Dr. Buchanan's conclusions, and also makes certain statements as to the very narrow area within which a most intense phthisis infection may be confined, statements which have a most important bearing on the question of direct contagion. In the preface to the published address he says: "The force of facts presented to me by correspondents compels me to resign the commonly received opinion that consumption is equally diffused throughout New England, and to adopt the new one of the address—viz., that there are some spots which have very little of that scourge of the human race, while in other places, and even in particular houses, it prevails to a frightful degree; and moreover, that these spots may be perhaps within a very short distance from each other. Again, facts, as I believe, indicate that dryness of the soil in the surroundings of any place is the prominent characteristic of the former, or of places comparatively free from consumption, while dampness of the soil characterises the latter, or, as they may be aptly called, 'consumption-breeding districts.'" In reviewing the evidence which has been adduced in proof of direct contagion, Dr. Bowditch's address will be again referred to. At present I wish to point out that the influence of dampness of the soil in increasing phthisis mortality, although it rests on unusually trustworthy facts, is yet not a universal law. Dr. Buchanan's list of towns in which more or less drying of the soil had taken place supplies, as he himself acknowledges, exceptions to his general conclusions. The most striking is that of Ashby, where, with "some drying" an increase of 19 per cent. in the deaths from phthisis took place. It is true that the numbers in this, and in other exceptions which I shall mention, are small, and, if included in large tables, could make only a fractional difference in the percentages. But statisticians are apt to overrate the power of figures. A single real exception is sufficient to invalidate the claims of any supposed universal law, and the study of these exceptions, numerically so insignificant, is absolutely necessary if we would reach a final generalisation. The present registration districts are so large, and many of them include localities differing so widely from each other in important particulars, that it is impossible to investigate satisfactorily the true causes of diseases by the aid of figures which do not deal separately with the sub-districts.

In 1866 Mr. G. A. Rowell of Oxford published a pamphlet "On the Effects of Elevation and Floods on Health." He was a man of deservedly high local reputation, spent immense labour on his task, and his facts, remarkable as many of them are, are probably trustworthy. Unfortunately their verification is extremely difficult, for he compares single parishes and small districts which it is impossible to pick out of the Registrar-General's tables. Here is his account of two villages a few miles from Oxford up the Thames valley, given with some verbal alterations and omissions of unimportant details:[8]—"Cassington and Wolvercot are both situate on gravel, both have excellent water for drinking purposes, and both are in the same Poor-law union, and within two or three miles of each other. Cassington is not situated on a hill, but upon a bed of gravel which projects into the valley towards the river, but is high and dry above it. The village is fully exposed to the currents of air which sweep through the valley from west to east, having but little protection from trees or other shelter. The roads through the village are wide and well kept; the cottages appear to be much better than in most villages, are well distributed, and although I saw it in wet weather, during a flood season, I thought it one of the cleanest villages in the neighbourhood. Wolvercot presents appearances as reverse as possible to those of Cassington. It is protected from the east wind, and Lower Wolvercot is well sheltered by trees on the north and north-east. Along the bottom of the rising ground in Upper Wolvercot there is a ditch of stagnant water, and the ground between the lower houses and the canal is liable to flood in winter, presenting at all times the nearest approach to a swamp that I know of in the Oxford valley. In Lower Wolvercot some of the houses are at times flooded, and all of them are but little above high flood level. There are stagnant ditches around the village and stagnant pools within it, except in dry summer time; even the road through the village, till very recently, was generally impassable for carts in flood seasons, and partially flooded at all times. The cottages are certainly not better than they are at Cassington, while they are much more crowded together. At Wolvercot a great many ducks and geese are bred, and the early broods in cold spring seasons are often kept within doors in the cottages. Thus, in accordance with general opinion, the condition of Wolvercot is much less favourable to health than that of Cassington; but statistics for the twenty years from 1841 to 1860 show that in Cassington the death-rate was 27 per cent. higher than in Wolvercot, and the average of life 25 per cent. in favour of the latter village also." The actual figures given by Mr. Rowell are as follows:—

"Cassington...	Annual deaths ...	1 in 40·2 persons.
	Average age	25 years 10 months.
Wolvercot ...	Annual deaths ...	1 in 51·3 persons.
	Average age	31 years 7 months.

"Allowing for the difference in the population of the two villages more than double the number of deaths from con-

[7] Tenth Report of the Medical Officer of the Privy Council, p. 109. 1867.

[8] Op. cit., p. 24.

sumption occurred in Cassington than there were in Wolvercot. Classing that disease with all others of the respiratory organs, the deaths were 70 per cent. in excess in Cassington."

Thus, whatever may be the relation between dampness of the soil and phthisis, it is clearly one which may be overpowered or masked by other forces. Of the three conditions, so far considered, two—viz., altitude and soil dampness—have undoubtedly great influence, the first in preventing, the second in developing, phthisis, and in both the facts indicate that there is a something, in large measure independent alike of the constitution and social habits of the populations subject to it, but without which phthisis cannot exist. It is certainly improbable that altitude acts only by producing, sooner or later, a race of men which is proof, or all but proof, against certain morbific conditions. For, on the one hand, natives of the hills readily contract phthisis in the lowlands, and on the other hand, the lowlanders recover when removed to the hills. The anti-phthisical constitution, if it be in any way due to altitude, must be a very temporary affair, easily acquired, and easily lost. And yet there is no *a priori* improbability against the formation of such an anti-phthisical constitution, or against its acquiring a permanent character. Indeed we know that there are races which remain comparatively unharmed by phthisis in the midst of deeply infected localities—e.g., the Chinese in Melbourne. Since then at a certain height above the sea phthisis ceases to occur, and affected cases recover without affecting injuriously their friends and neighbours, whilst there is no reason to suppose that these latter possess any special protection against phthisis other than what may be temporarily due to residence at a certain altitude; it is surely reasonable to suggest that the cause of this immunity is to be found in the supposition that some external agent, essential for the development of phthisis, is here inert or absent. In the case of soil dampness, the probability of the existence of some such agent is even greater. It is difficult to understand in what way the drying of the soil by the execution of sewerage works could have so profoundly and so rapidly altered the constitution, occupation, habits, and vitality of the people of Salisbury for example, and of other towns, as at once to reduce by a very large percentage the number of cases of a developmental disease, if phthisis be regarded as developmental, or of a directly contagious disease, if it be regarded as directly contagious. Surely here, too, as in the case of "altitude," a reasonable, perhaps the best, explanation of the facts is that phthisis is produced by some external agent, but yet not spread in the ordinary course of things by direct contagion. The evidence from the effect of climate, pointing in the same direction, is less strong, for the affirmative facts are less certain and less striking. The exceptions, however, under all three heads—climate, altitude, and soil-dampness—present even a stronger proof than can be drawn from the general laws to which they are related. It is, I believe, all but impossible to explain these exceptions on either the developmental theory or on that of direct contagion. But this will be treated of in greater detail in the final summing-up of the conclusion to be drawn from the nature of the so-called causes of phthisis.

At present I would only add that these three conditions are in themselves entirely independent of any human agency; that, so far as man's action modifies the unwholesome influence of any one of them, it will be in civilised countries to minimise it by the use of suitable clothing, food, fire, and shelter; and that therefore their real power, as gauged by statistics, is probably under- rather than over-stated.

THE NAPLES INTERNATIONAL HOSPITAL.—The funds of this institution now show, in consequence of a change of house, &c., a deficit of 31,700 fr. The number of patients admitted during 1883 was larger by 16 per cent. than in 1882. The patients newly admitted during 1883 were 182, of which the large contingent was formed by Swiss, English, Germans, and Italians. The terms on which patients are received, and which include pension, medical advice, nursing, &c., are: First-class, 15 fr.; second class, 6 fr.; and third class, 2 fr. 50 cent. per day. Sailors pay a reduced price of 1 fr. 80 cent. a day for the third class, but it is contemplated to receive them gratis in future.

ON INJURIES OF THE KIDNEY.

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INJURIES to the kidney are generally caused by crushing accidents, such as the passage of a cart-wheel over the abdomen, or the squeezing of the body between the buffers of two railway carriages. A fall from a height striking the loin against a rail or some angular body, and pressure between a wall and the pole of an omnibus, are other ways in which the kidney may be damaged. The kidney has also been ruptured by direct blows, such as the kick of a horse. In addition to these, it seems possible that the kidney may be ruptured on its posterior surface by the sudden doubling up of the body. I am inclined to think, in a case related by Dr. Roberts,[1] the kidney was ruptured in this way. A drunken man fell from a height of seven storeys and was picked up insensible, suffering from a compound fracture of the skull and severe laceration of the legs. The urine drawn off by catheter was heavily charged with blood. It became almost clear on the third day, but the man died on the fifth. On post-mortem examination two transverse lacerations about an inch apart were found on the posterior aspect of the right kidney. Another case probably caused by the sudden bending of the body to one side has recently been published by Dr. M. Campbell.[2] A lad had leaped over a hedge into a field which was at a lower level than he expected. Landing on his feet he fell over on his left side, and shortly after complained of intense pain and voided bloody urine, which contained blood casts. He was treated with ice and recovered.

Injury to the kidney from muscular strain.—Hæmaturia, having its origin in the kidney, sometimes follows severe muscular strain alone, no fall or contusion having happened which could by any possibility have damaged the kidney. As an instance of this I will quote the following case, which came under my notice some years ago. A railway porter, aged sixty-six, was assisting in unloading sacks of beans from a truck. Whilst thus engaged a sack suddenly slipped from the truck and was only prevented from falling to the ground by his catching it with his hands. He instantly experienced a sharp stabbing pain in his abdomen, to the left of his umbilicus. When the pain lessened he thought no more about it, but the next time he passed urine it was deeply tinged with blood. After this, blood continued in the urine more or less for six months. I had a strong suspicion, from the general build and appearance of the man in this case, that a calculus might have previously existed without causing irritation, and that the sudden contraction of the muscles might have caused it to wound the kidney structure. Though this was not an improbable explanation of the particular case, hæmaturia has been too frequently noticed to follow muscular strains for it to be supposed that a pre-existing calculus was in each instance the exciting cause of the hæmorrhage. When hæmaturia is severe and continuous, it is probable that some rupture has taken place from bending of the body; and when slight and evanescent, it is possible that a sudden congestion has been brought about by the muscular pressure upon the abdominal veins.

Bruising of the kidney resulting in blood extravasation into its substance and beneath its capsule may occur without rupture of the organ, and injuries of the severest kind may happen without any evidence on the surface of the body to indicate the condition beneath. It would appear that complete disorganisation of the organ sometimes follows severe contusion. Mr. Pollock relates the following case[3] as an instance:—"A gentleman was bruised over the left loin by a fall in hunting, and experienced severe pain in the back on arriving home. Some months later the bladder was very irritable, and highly offensive urine mixed with pus was constantly passed. There was every evidence of abscess of the kidney; the quantity of pus was sometimes very considerable. The health became gradually deteriorated, and death occurred about two years subsequent to the accident. The left kidney was entirely destroyed, and in

[1] Urinary and Renal Diseases, p. 133.
[2] Brit. Med. Journal, Feb. 2nd, 1884, p. 225.
[3] System of Surgery, 3rd edition, vol. i., p. 882.

its situation was found a large irregular abscess, with its walls adherent to the surrounding tissues, and its cavity continuous with the ureter." This is a good instance of a pyonephrosis following an injury, but that the injury was simply a bruise of the kidney must be a mere conjecture. The condition found post mortem rather suggests some obstruction in the ureter, which might have been damaged and then have become strictured; or possibly a small calculus might have been dislodged at the time of the injury and have become impacted in some part of the duct. Nor do I observe any proof that the kidney might not have been partially ruptured, for the crack might be closed by new material, and subsequent suppuration might communicate with the pelvis. That the pyonephrosis resulted from the injury, however, remains clear; and had renal surgery at that date advanced to its present stage, the man would probably not have died unrelieved. Aspiration through the loin would have shown the presence of pus; incision and antiseptic drainage would afterwards have given relief; and, failing a complete cure by this means, the kidney would have been excised.

Ruptures of the kidney usually run either transversely or in a direction radiating from the pelvis. This is determined not merely by the direction of the force, but by the fact that it is easier to fracture the kidney structure in a direction parallel with its tubules than across them. Owing to the course of the fracture, the larger vessels commonly escape injury. Sometimes the organ is found completely broken into two, but more commonly the injury is limited to cracks or fissures of variable depth, which on post-mortem examination, are found filled with firm, prismatic clots. The following is an instance of complete rupture.[4] A man, aged twenty-seven, was said to have fallen from a gate on to the edge of a cask, when in a state of extreme intoxication. He complained of pain in the abdomen, and died twenty-seven hours after the accident. On opening the abdomen after death, the viscera were found pushed forwards, and it was evident that an immense quantity of blood had been extravasated behind the peritoneum lining the posterior wall of the cavity. The blood had insinuated itself in every direction under the membrane and between the layers of all its folds and processes, through the mesentery, mesocolon, the omentum, and over the large and small intestines and stomach, so as to give to the abdominal viscera a general ecchymosed surface, which extended into the deepest parts of the true pelvis. The peritoneum and both cavities of the chest contained blood-stained serum, thought to be due to post-mortem transudation. On removing the viscera from the posterior abdominal walls an enormous coagulum of blood was seen in the left lumbar region extending from the diaphragm to Poupart's ligament, and also over the spine in a lesser degree to the right side. In the midst of this coagulum was the left kidney, which was completely divided transversely through its middle into an upper and lower half. No other viscus appeared to have suffered lesion. There was no external bruise on the loin, and no particular extravasation of blood between the muscles of that part. The left tenth and eleventh ribs were fractured. It is very evident that the man died from hæmorrhage. On the second day the report states that his bowels had acted freely, and that he had passed his urine, but no mention is made of the urine containing blood, a fact I shall again allude to.

If the kidney is ruptured into the peritoneal cavity—that is to say, if the peritoneal covering is torn at the same time that the kidney is fractured, hæmorrhage takes place more rapidly, and death is likely to occur sooner than if the bleeding is behind the serous membrane. The following case of complete rupture will illustrate this point.[5] A boy, aged eight years and a half, whilst holding the handle of a truck was suddenly struck by it, in consequence of a waggon being driven against the truck, the handle of which was broken by the force of the collision. He fell against a post, arose almost directly, and ran a few yards, when he dropped. He was admitted cold, anxious, complaining of pain in the abdomen, and with feeble heart's action. Warmth and stimuli were employed with slight temporary success, but he died within an hour and a half of receiving the injury. The cavity of the abdomen contained about a quart of blood, little clotted, and generally diffused. The right kidney was lacerated, and its superior extremity completely separated. The right renal capsule was torn and the liver bruised. The bladder was found empty and contracted.

When injury occurs to the right kidney there is frequently an accompanying damage to the liver. Considering the intimate relation that exists between these organs such an occurrence is only what might be anticipated. There are four cases of rupture of the right kidney reported in the Guy's Hospital Reports for 1844, and in each instance the liver was also found damaged. In consequence of this complication a less favourable prognosis should be given when hæmaturia is associated with injury to the right side of the abdomen than when the same symptom follows damage to the left side. A fracture of two or three of the lower ribs is another common complication. Ruptures of the kidney are less dangerous than lacerations of the liver or spleen; for the bleeding is usually less severe, and takes place behind instead of into the peritoneal cavity. Cases of recovery must have come under the notice of most surgeons of large hospital experience, whilst the crucial proof that extensive lacerations may be recovered from lies in the deep white scars found post mortem on kidneys that have been injured years before.

The symptom most characteristic of injury to the kidney, when the abdomen or loin has been contused, is the passage of blood in the urine. This, however, may sometimes be absent. In the cases of complete rupture detailed no blood was noticed in the urine; and Erichsen[6] mentions two cases of severe laceration which were unaccompanied by hæmaturia. It would appear that, as a result of very severe damage, the kidney becomes incapable of secreting. The immediate cause of the suppression is probably a plugging of the renal vessels, and two cases in which this condition was found after death are related in the Guy's Hospital Reports for 1868.[7] It having been demonstrated that with the severest damage to the kidney there may be no hæmaturia, the question naturally arises, How is such injury to be diagnosed in the absence of the most reliable symptom? Though the indications may be more obscure in these cases, there are still signs which will generally point to the nature of the injury. In the first place, there will be evidence of damage in one or other loin, with symptoms of collapse, and the general signs of severe hæmorrhage. The muscles are contracted and rigid over the space between the ribs and os innominatum, and this region becomes rapidly dull on percussion. Secondly, one kidney having suddenly ceased to secrete, the urine, if collected and measured, will be found to be reduced to half the normal quantity, and this condition will continue for several days should the patient survive. These two signs, together with the absence of such as would point to rupture of the intestine, may, I think, be generally relied upon to indicate rupture of the kidney.

In the other cases the urine, at first coloured, becomes after a short time quite clear, although there is evidence that the injury is severe. This may be explained in two ways: either (1) the blood is extravasated beneath the peritoneum in such quantity as to compress the ureter, or (2) this duct has become plugged by a clot in its interior. The following is probably an instance in which a clot blocked the ureter, and, being subsequently dislodged on exertion, allowed free hæmorrhage again to take place.

A man,[8] aged twenty-two, fell from a vessel into the mud on Feb. 25th, and was admitted into Guy's Hospital, cold and insensible. He revived after being in a warm bath, but complained in the evening of great dyspnœa, pain in the abdomen and loins, &c. There was great tenderness in the lumbar regions, especially the left, and he passed bloody urine. Pulse weak but very quick. About ten ounces of blood were taken from the arm, which gave him relief, and caused the pulse to rise. He was ordered calomel and opium. On the following day his urine was clear. On March 14th he arose perfectly well, and was on the point of leaving the hospital when about 8 A.M. he felt some uneasiness across the lower part of the abdomen and in the left loin. On going to stool, instead of passing water, he voided a large quantity of pure blood from the bladder. In a short time he passed a second, and then a third, quantity of blood, and became faint; some wine was given him. At ten o'clock he passed some more blood, which seemed to be arterial, and was probably from the kidney. He complained of uneasiness rather than pain across the abdomen and left loin. He was ordered opium and iron internally, and

[4] Guy's Hospital Reports, 1844, p. 484.
[5] Ibid., p. 485.
[6] Science and Art of Surgery, 6th edit., vol. i., p. 506.
[7] Poland, p. 86; Moxon, p. 99.
[8] Guy's Hospital Reports, 1844, p. 479.

ice to be applied to the abdomen. At two o'clock his urine was only tinged with blood. From this time he had no further hæmorrhage. He was cupped over the loins with much relief on March 19th, and left the hospital quite well on March 29th.

(*To be concluded.*)

ON THE

INFLUENCE OF SMALL-POX HOSPITALS.

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No. IV. (*Concluded.*)

ONE body of evidence has still to be considered—evidence which has found no place in Mr. Power's report, but which will appeal with considerable force to the generality of minds. If Mr. Power's theory of distal "aerial dissemination" of infection from small-pox hospitals in all directions at the commencement of an epidemic and during certain conditions of the atmosphere, is true for Fulham, it should be equally true for all the small-pox hospitals in London, yet no suggestion has been made elsewhere of an "outburst" such as that on which Mr. Power dwells so much in his report; and round other hospitals, as noticed at Deptford by Dr. Bristowe,[1] the tendency to aggregation of cases round the hospital has been at the close instead of the commencement of the epidemic. We find, moreover, certain very remarkable cases of complete immunity from the disease, which certainly require explanation, if Mr. Power's hypothesis is to be accepted. Take, for instance, the Infirmary of the City of London Union, which stands at a distance of ninety feet from the westernmost block of Homerton Hospital, and in which, "on two occasions, for a period of four months each, there were forty small-pox beds constantly occupied. The windows directly face each other, and are almost always open. Here, then, apparently are the conditions for the passage of small-pox if it be true that it may be carried long distances through the air. Amongst a number of persons, consisting of children, new-born infants, and young women in confinement, there were likely to have been some susceptible persons . . . . . Air liable to contamination from 250 small-pox patients . . . . . might have passed into rooms inhabited by persons some of whom were probably susceptible to its influence, and yet on neither of these occasions did a single small-pox case arise in the union infirmary."[2]

Hackney workhouse, again, about a quarter of a mile from Homerton Hospital, shows a like immunity.[3] Highgate Infirmary, holding 400 or 500 sick patients, is but 200 feet from Highgate Small-pox Hospital, yet the cases of small-pox occurring in it within ten years are quite inconsiderable, and they ceased altogether when visitors were excluded.[4] At the Holborn Union Infirmary, Highgate, a quarter of a mile from the hospital, the few cases that occurred were traced to the visits of friends. "Then," to quote Dr. Bridges,[5] "there is the Kensington Infirmary, and also the Kensington Workhouse, distant between 800 and 900 yards from Fulham Small-pox Hospital, and these institutions hold nearly 1000 people. There are also the St. George's Workhouse and the St. George's Infirmary in the Fulham-road; these two institutions are about 800 yards from the Small-pox Hospital at Fulham, and hold about 1800 people." "My contention is," Dr. Bridges goes on to say, "that the number of cases occurring within a short distance of a small-pox hospital has been in no way greater than in the case of those infirmaries that are far from small-pox hospitals."[6] Again Dr. Collie reports:[7] "In 1871 and 1876 small-pox patients were admitted to the hospital at Homerton. In 1871 we treated in the hospital 1196 cases of small-pox and fifty cases of other diseases, and not one of these cases took small-pox, although with small-pox on either side of them. In 1876 we treated 1000 cases of small-pox and about fifty cases of other disease; there was one (very) doubtful case of small-pox." In the ten years 1871–80 some 7000 fever patients were treated in Homerton Hospital, and, as Dr. Collie observes: "It is very remarkable that 7000 persons of all ages and sexes, at all times of the year for ten years, should have come within shot (if we are to believe Mr. Power) of small-pox, and excepting those who died, should have remained within shot of small-pox for about six weeks each with impunity."[8]

Of provincial examples Mr. Power would probably take little account; they are, however, of some value, and two quoted by Dr. Thorne at Nottingham and at Leeds have been already noticed. Another very striking instance is given by Dr. Seaton in his paper already quoted.[9] A lace factory, with 117 "hands" working night and day, was virtually in the hospital grounds, the distance being only thirty yards from the nearest hut to the factory wall. Some of the windows on the second and third floors overlook the hospital grounds, and on examination no less than forty-eight of "the hands" were found to be not at all, or very slightly, protected by vaccination. At one time there were seventy-eight cases of small-pox in the hospital huts, and in one week as many as thirty-two fresh cases. "During the eleven months 'the hands' must have been working under every conceivable variation in atmospheric conditions.....On the hypothesis of aerial infection and having regard to the close proximity to the hospital," as Dr. Seaton remarks, "it is certainly very difficult to account for the immunity of these forty eight persons during the whole of the epidemic." One other instance of exemption, perhaps the most remarkable, has still to be noticed. On any theory of aerial infection such as Mr. Power describes, the streets nearest to a small-pox hospital, provided they contain susceptible material, should suffer in proportion to their proximity. Yet Mr. Bostock, in his evidence before the Royal Commission,[10] tells us that from Edithna-street, with its 300 or 400 inhabitants in sixty-six houses, the end ones nearly opposite the hospital gates at Stockwell and thirty-five yards only from the nearest wards, three cases had been received in the last two years. From Hubert's-grove, with twenty houses distant about sixty yards, two cases were received. From Hargwynne-street, with its 140 houses, mostly crowded, and the nearest twenty yards only from the mortuary and thirty-five yards from the nearest ward, two cases only were received in two years; whilst at Fulham, from Seagrave-road, with its thirty houses inhabited by the very poor, three cases only were received in 1878, one in 1879, and not one during Mr. Power's notable "outburst" in 1881. Yet here, if anywhere, the soil would seem ripe for the noxious seed.

I have now briefly, but I hope fairly, dealt with the arguments on which Mr. Power bases his hypothesis of distal aerial infection, and the difficulties which have to be answered before a theory so contradictory to all previous experience can meet with general acceptance. A brief *résumé* will serve to recall the chief points at issue, and it will be best given in the words of the Hospitals Commission Report (p. xxv.) It is alleged that—(1) "We find in each epidemic period an excessive incidence of small-pox in the neighbourhood of the hospital as compared with that at a distance. (2) Comparing epidemic with epidemic we find that the aggregate incidence varies with the amount of hospital operations. (3) Analysing the incidence we find that the proportion of houses invaded by small-pox decreases as they are more distant from the hospital with a regularity strongly suggestive of a natural law. (4) And examining the incidence from fortnight to fortnight we find that the number of small-pox cases arising in the neighbourhood varies generally with the number of acute cases under treatment in the hospital. (5) In a special and carefully studied outbreak of disease we find a large number—an unusually large number, it is said—of independent cases which cannot, after the most minute inquiry, be connected with the personal communications of the hospital or with any other source of infection by contact, and particularly that the houses on the lines of human intercourse have not suffered more than other parts of the same neighbourhood." Such, briefly stated, is Mr. Power's case for distal aerial infection through a still atmosphere.

On the first point there will probably be little difference of opinion, though the influence of a small-pox hospital for evil may easily be exaggerated. From the nature of the case such a building would usually be erected in a poor neighbourhood, where small-pox might be expected to spread with

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[1] Hosp. Com. Rep., Q. 438.
[2] Dr. Collie's evidence, R. Commission, Q. 2164.
[3] Dr. Bridges, ibid., Q. 641. [4] Hosp. Com. Rep., Q. 644.
[5] Ibid., Q. 641. [6] Ibid., Q. 645. [7] Ibid., Q. 4283.
[8] Ibid., Q. 4296.
[9] Influence of Small-pox Hospitals. Transactions of the Epidemiological Society, new series, vol. ii.
[10] Q. 1263.

some rapidity. We should differ, however, from Mr. Power as to the cause of the spread, and should be inclined to exhaust the known channels of infection before resorting to an hypothesis which runs *contra* to all previous experience and knowledge of the disease.

On the second point it may be remarked that the hospital operations would naturally increase in proportion to the number of cases in the neighbourhood requiring admission. It has been shown, moreover, that in each epidemic save one, when the advent to Fulham was distinctly later, the accessions and recessions of the disease round Fulham Hospital and in the metropolis generally have shown a synchronism, which is simply startling in its regularity, pointing indubitably to a general law and not to any local influence acting over a limited area.

The third point is based on Mr. Power's table, showing, on the face of it, a graduated distribution of disease around the hospital. It has been remarked, however, that the rings nearest to the hospital contain a poor and crowded population, contrasting in this respect very notably with the rings further away, composed in great measure of Kensington mansions and houses of the wealthier classes. The extension of the disease also has exhibited an irregularity strongly suggestive of spread from sporadic cases, and quite incompatible with any theory of quiet dissemination in a still condition of atmosphere. Streets crowded with poor and close at hand have escaped, whilst others further away have suffered severely. Domestic servants have been singled out in a very remarkable and undue proportion by the disease. The symmetrical gradation, too, of Mr. Power's table disappears when the incidence on the various rings is separately examined for the three parishes of Chelsea, Kensington, and Fulham.[11] The cases, moreover, which Mr. Power puts forward as evidence of aerial dissemination of infectious matter have been spread over considerable periods of time, and have occurred by twos and threes in a fortnight, not in larger batches, as might naturally be expected from such a cause.

The fourth point has been shown to be quite untenable on a closer view of the hospitals operations from day to day; but it may further be remarked that if the emanations from fifty-five mixed cases received in thirty-five days (Dec. 1880 to Jan. 17th, 1881) into Fulham Hospital could be disseminated under any conditions of atmosphere to a distance of a mile and a half, a mile, or even half a mile, and cause an "outburst" such as that of Mr. Power (Jan. 26th to 30th, 1881), no small-pox hospital could, under any circumstances, be tolerated in the metropolis, and the arrangements recently made for the admission of fifty severe or seventy mixed cases to Fulham and Hampstead Hospitals are not merely a blunder, but a crime.

The fifth point is a simple statement of facts, the main point for our consideration being the inference to be drawn from them, after allowing due weight to the ordinary causes of small-pox spread during an epidemic in a poor and crowded population, intensified probably, even under the best of management, by the presence of a small-pox hospital with its incomings and outgoings, and aggravated most certainly when from any cause the rules of administration and discipline have been relaxed or imperfectly carried out. Up to the appearance of Mr. Power's report, which from its very perfection and finish has exercised a strange fascination over many minds, the opportunities here indicated would have been held sufficient to account for any number of untraced cases. We are now asked to believe, however, that "aerially contained matters" ("they adhere to the air" is Sir Wm. Gull's expression[12]), still endowed with infective power, may be "disseminated" from a small-pox hospital over a circle having a radius of a mile, or even a mile and a half; and I venture to think that stronger and better evidence than any which has as yet been advanced will be required before distal aerial dissemination of small-pox matter takes a place in the sanitary belief of the country. In a concluding paper I hope to deal with our present knowledge of small-pox spread independently of Mr. Power's report, and with the alleged intensification of small-pox virus through the aggregation of cases in small-pox hospitals.

[11] Cf. Bostock, Ibid., Q. 1263. [12] Ibid., Q. 4374.

MR. W. J. PAYNE, Coroner for the City of London, died very suddenly on the 14th inst. at his residence in Reigate.

THE TREATMENT OF UTERINE DISPLACEMENTS BY MEANS OF MEDICATED TAMPONS.

BY ROBERT BELL, M.D.,
PHYSICIAN TO THE GLASGOW INSTITUTION FOR DISEASES OF WOMEN.

(*Concluded from page 659.*)

IN cases of ruptured perineum or troublesome rectocele and cystocele it is my invariable habit to precede operative interference by a course of tampon treatment. It tends very much to ensure the success of the operation, by reducing the bulk and weight of the uterus, and in consequence renders it more easy to obtain a successful result. For the same reasons this method is most useful in procidentia. I confess this appears on the face of it to be a bold statement, but the results I have obtained in what appeared to be most unpromising cases of this disorder are most gratifying. A lady called on me recently whom I treated for this complaint some four years ago, and whom I had completely lost sight of. When she appeared I naturally concluded she had returned for further treatment, but to my surprise she informed me she had been in perfect health since I last had seen her, and that she had never suffered from any inconvenience in the womb all this time. Notwithstanding the relief she had obtained, it is more than likely that I never would have seen her, or have had the gratification and satisfaction of hearing of it, had she not been asked by a lady friend —who was suffering from another disease, however—to introduce her to me. Even if the treatment by tampons does not always so completely relieve as it did in this case, it invariably paves the way to the employment of a ring or other pessary. In anteversions and anteflexions it appears to me to be the only plan where anything like satisfactory results can be obtained, in anteversions more especially. I do not forget that a greater or less deviation forwards may exist without this being any more than normal; but where the uterus is actually horizontal, the effect of fourteen or twenty-one days' treatment has in a number of instances proved most remarkable. When there is anteflexion, however, the task is not so easy. A case of this kind in a nullipara (which, by the way, is still under treatment), wherein the flexion was so acute that the fundus lay close to and at as low a level as the os, has proved very intractable. This patient came to me complaining of persistent morning sickness, which had been more or less severe all her married life, but latterly had become so inveterate as to be almost intolerable. Besides this, she suffered most intensely at her menstrual periods. After having been treated by several medical men, as she said, for her stomach, I was asked to ascertain if the symptoms could be accounted for by any uterine ailment. The knee of the flexion was more in the body than at its junction with the cervix, and I could by no means get the sound to pass beyond the point of flexion. I therefore proceeded to treat the displacement by pushing up the fundus and supporting it by a tampon, tightly and firmly packed in below it. After two or three weeks of this treatment the sickness began to abate, and latterly it quite disappeared for two days after each application of the padding; but when this loses its grip, so to speak, the sickness returns to a certain extent, yet I am hopeful by persevering with the treatment to prevent the return of the sickness entirely. Certainly the flexion is not nearly so acute as it originally was, the dysmenorrhœa is very much less, and there is now very little leucorrhœa. Notwithstanding all these improvements, however, the tendency of the fundus to assume its abnormal position always asserts itself, and I am not at all sanguine as to the complete cure of the flexion.

The details of another case may prove more interesting, as the result was very satisfactory. Mrs. M——, aged twenty-three, married two years. Sterile; menses regular, but always accompanied by severe pain; copious leucorrhœa; bladder very irritable, and consequently desire to micturate is very frequent. On this account she cannot sleep for more than an hour and a half at a time, and very rarely can she lie even for that short time. When the bowels move there is always pain, referred to the womb. There has

always been dyspareunia. Sexual desire was normal during the first few weeks of married life, but after that it completely disappeared. The patient is very low-spirited and weak. On examination per vaginam the uterus was found to be acutely sensitive to touch and anteflexed. There was a stricture at the internal os. This examination was made on Oct. 17th last, and on that day I commenced treatment by reducing the displacement and keeping the fundus in position by means of medicated tampons applied twice a week. My next note was taken on Dec. 19th, when I found the uterus could be manipulated freely without producing pain, and defecation could be accomplished without suffering. Urine could be retained during the day for three or four hours, and she slept all night. Sound passed easily and unaccompanied by undue pain, and the position of the uterus was normal. There was still, however, a considerable amount of uterine catarrh.—Jan. 3rd, 1844: Patient says she has not felt so well for three years as she does now. Menstruated five days ago, and without pain. There is still some catarrh, but the uterus is free from undue sensitiveness. The rectum is loaded with hardened fæces. Ordered an enema, consisting of a pint of thin gruel with a dessertspoonful of common salt added, to be used every day. Applied the tampon.—26th: Uterus is in normal position and free from tenderness. Has again menstruated, and without pain. Expresses herself as feeling quite well, cheerful, and light-hearted. In cases such as this, where there is much uterine catarrh, I am in the habit of supplementing the tampon treatment (which is renewed every three or four days) by intra-uterine medication once a week. This consists of a saturated solution of iodine (320 grains) in liquefied carbolic acid (eight ounces) to the whole length of the canal, or to as great a portion of it as can be reached without employing undue force. Having first ascertained the direction the canal takes, by means of the sound, the applicator, which is made of soft copper wire, is bent accordingly, and, having been covered with a piece of absorbent cotton for two inches of its length, is dipped into the solution and introduced into the uterine cavity, and allowed to remain for a few seconds (I generally allow it to remain during the time I am preparing the tampon). When it has thus been permitted to remain in the uterus, it will be found that the uterine walls will have contracted firmly on the instrument, and it will require some little traction to remove it. When the uterus is flabby and patulous, and the walls thickened, this will be found to assist materially in removing the diseased condition.

I will now give details of two cases of retroflexion treated on the lines I have indicated.

Mrs. B——, aged thirty-five, consulted me on June 21st last. She had one child, a year old; she had never known what it was to feel well since it was born. She complained of severe backache, pain on going to stool, and frequent desire to micturate. She was very weak and low-spirited, and said she had lost very considerably in flesh lately. Menses were regular, but copious, and accompanied by severe pain during the whole flow, but this was more intense during the first three days. Being resident in Roxburghshire, her medical attendant had sent her to Edinburgh to consult a specialist, who diagnosed a retroflexion and introduced a Hodge's pessary, but since this had been done the pain in the back had become more acute and her general symptoms were worse. The pessary being still *in situ* when she called upon me I removed it. The mucous membrane of the vagina was very hyperæmic and sensitive, so that a digital examination was not accomplished without considerable pain. This, however, revealed an acutely retroflexed uterus, which was also very much hypertrophied. The whole organ was very painful to the touch, but this sensitiveness was very much aggravated at the fundus and body. The os was gaping, and the whole canal was patulous, and from the os was exuding a muco-purulent discharge. I contented myself with the application of a tampon behind the fundus, which I removed at the end of three days, and then applied another. This bi-weekly application of the tampon was continued for a fortnight, when the menses appeared. The flow lasted for seven days, and although very copious it was accompanied by considerably less pain than on the previous occasion. When the discharge had ceased, the treatment was again resumed; but, in addition, the carbolic acid and iodine solution was applied once a week to the whole area of the uterine canal. This routine practice was carried out for two months, during which time the symptoms steadily improved and the dysmenorrhœa and menorrhagia also abated, the patient expressing herself as feeling very much improved in every way. She could now walk a little distance without pain, whereas before every movement was accompanied by intense suffering. The uterus was at this time retroverted, the flexion having completely disappeared; but there was still considerable hypertrophy and the catarrhal discharge was copious; this, however, had now ceased to be purulent. The vagina, too, was free from the hyper-sensitiveness that had previously existed, and the uterus, except at the fundus, was also free from tenderness. The symptoms having so far improved, the bi-weekly attendance was discontinued, and from this time till the middle of October I only saw the patient once a week, when she returned home feeling quite well. At my request she came to see me after the next monthly period had passed, when she informed me it had continued only four days, was moderate in quantity and unattended by pain. She had been going about her usual household duties, but said "over-fatigue always made her feel she had a back." The uterus was, however, in good position and of the normal size, but as a precautionary measure I introduced a Hodge's pessary, which she is still wearing. I have heard from her several times during the last two months, and she expresses herself as feeling quite well.

In conclusion, I will narrate one other case, which is of still more interest than the preceding, because the symptoms were more aggravated, and the results as satisfactory as they could possibly be.

Mrs. M——, aged thirty, married seven years; nullipara. Consulted me about two years ago in consequence of severe and prolonged metrorrhagia. She was weak and anæmic. She said she was seldom free from discharge for more than a day or two at a time, and there was indeed considerable hæmorrhage when I first saw her. At first I was inclined to attribute the flooding to the presence of a fibroid, as a considerable swelling could be felt in the recto-vaginal cul-de-sac. This, however, proved to be the hypertrophied fundus retroverted. The whole uterine texture was flabby and hypertrophied, but not at all painful when touched. The canal was patulous, and admitted the sound readily, which revealed a granular condition of the mucous membrane. Having rectified the position of the organ, I applied fuming nitric acid to the whole extent of the canal, and introduced a tampon behind the body and fundus, and directed the patient to use an ergotine suppository (four grains) every six hours, and to remain quietly in bed. Three days afterwards the tampon was removed, when it was found that the hæmorrhage had been arrested. Another tampon was applied and allowed to remain for a like period, and the ergotine suppositories ordered to be continued every twelve hours instead of six. On this second tampon being removed, there was detected a slight oozing of coloured discharge, so fuming nitric acid was again applied and the tampon treatment persevered with. It was not deemed necessary to have recourse to the caustic again, as the hæmorrhage was checked so far. There still was present, however, considerable menorrhagia for some time afterwards, and the menses recurred too frequently, but they gradually became more normal, both as to time and quantity, under a weekly application of the carbolic acid and iodine solution and a bi-weekly use of the tampon. The uterus also became reduced in size, and attained its natural position, so that by the end of four months every sign of disease had disappeared. I did not deem it necessary in this case to introduce a pessary into the vagina as the cure seemed complete, and the patient expressed herself as feeling so well. I did not see the patient again till the end of last year, when she called upon me greatly distressed in her mind, though she looked the picture of health. She said she was afraid some other disease had attacked her, as she had not menstruated for four months, and that there was a swelling in her abdomen. Her fears, however, soon gave place to joy when I was able to inform her that she was pregnant, and that this alone accounted for her symptoms. I should, perhaps, add that the tampon varies in size with that of the vagina, and that it is as well to attach a piece of fine cord to it to make its withdrawal easy of accomplishment. The proportion of alum to glycerine is one in eight, and to every eighty ounces an ounce of boracic acid is added, to keep the tampon from becoming fetid, which it otherwise would do if the discharge from the uterus is at all copious. The tampon itself is composed of carded cotton.

THE

HEREDITARY TRANSMISSION OF HYPOSPADIAS AND ITS TRANSMISSION BY INDIRECT ATAVISM.

BY ALFRED LINGARD, M.R.C.S.

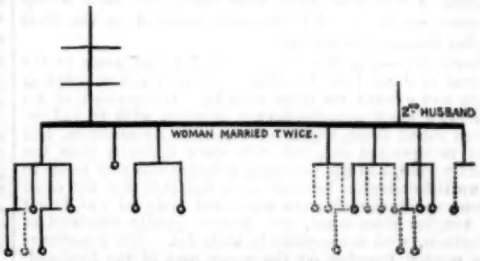
ALTHOUGH the principle of hereditary transmission of various deformities and abnormalities, such as supernumerary fingers, toes, hare-lip, moles, and other dermal peculiarities is well recognised, few well-authenticated cases in which one or other of the above-named peculiarities has been known to be transmitted through two or three or more generations have been recorded. Among hereditary malformations hypospadias has long been recognised as a not uncommon hereditary condition. Mere reference to the list of authorities appended suffices to show this. In the cases referred to below which I have been able to collect, it will be seen that hypospadias occurring in several members of the same generation is by no means uncommon. Sir Everard Home relates a case of a family of three children of whom the first was a hypospadian, the second, a girl, was normal, and the third child, a boy, was a hypospadian.

Equally well-authenticated instances in which the deformity has appeared in two successive generations are recorded by Morgagni, Shorthouse, and others. The case described by Shorthouse is of sufficient interest to be quoted. The patient, a poor woman, had mutilated hands, apparently examples of inter-uterine amputation. The fourth and fifth fingers of each hand were absent, but were represented by the small wart-like or mammillary stump typical of inter-uterine amputation. The husband of this woman was a hypospadian. They had a family of six children, of whom four were boys and two were girls. All the four boys inherited the urethral imperfection. Both the girls were born with mutilated hands.

It is not a matter of great difficulty to trace family peculiarities through two generations. When, however, we seek to follow such variations through three or more generations the task is not so easy. In looking through the literature of the subject I have found such cases diminish in an inverse ratio as I have proceeded. Perhaps the most trustworthy record in which the hypospadiac deformity has persisted through three generations is that cited by Rigaud of Strasburg. In this instance there were three brothers hypospadians. One of these brothers had a son, also a hypospadian. This son became the father of six children, in three of whom the urethral anomaly reappeared. The above cases amply prove the possibility of such a deformity as hypospadias being passed on through successive generations from father to son, and even through the female line.

I will now give the record of a case which corroborates in a striking manner the cases narrated above. At the beginning of this century a hypospadian, whose father and grandfather were also hypospadians, contracted a marriage with a lady not related to him, who bore him three sons, hypospadians. The eldest of these sons married, and in his turn became the father of four other hypospadians; of these four sons two married, the first procreating two fresh hypospadians, the second becoming the father of one. The two other brothers did not marry. Here we have the deformity transmitted in the direct male line from father to son through six generations.

I now come to a most interesting, and, as far as I am aware in the human being, unusual example of that condition to which Dr. Sedgwick has given the name of "indirect atavism." All breeders of cattle and other animals are familiar with the fact of the females throwing back—that is, reproducing after impregnation by a second male—the peculiarities of some other male by whom they had been previously impregnated. That this is not impossible in the human female is proved by the following case. The third of the six hypospadians just referred to died a few years after the birth of his three sons. His widow within eighteen months after his death contracted a second marriage, the husband in this instance not being a hypospadian, and having no history of any such deformity in his family. By this marriage she had four sons, all hypospadians. Two of these hypospadiac sons had hypospadians in their turn. But, as will be seen on reference to the accompanying schema, one of these sons had three boys without any deformity, although the eldest boy was a hypospadian. The acquired predisposition of the mother thus gradually wore itself out. Unfortunately it has been impossible to trace the history through the females of these six generations. It may fairly, however, be presumed that one or more of them transmitted the hereditary peculiarity to some of their male offspring. In support of this, however, Heuremann, quoted by Arnaud, may be mentioned. In this instance the females of one family had for several generations given birth to males,



The black lines denote the subjects of hypospadias. The dotted lines denote the children of hypospadiac fathers, themselves normal.

all of whom were affected with hypospadias. Further, Lecat states that minor degrees of hypospadias not unfrequently run in families in Normandy. In connexion with the transmission of hereditary peculiarities I may relate the following case, the details of which I have ample authority for knowing to be unimpeachable. In this instance a large mole, with a diameter of an inch and a half, has been observed on the inner aspect of the left thigh in the males of three generations, the females as well as their children through these generations being free from the mark.

In conclusion, the case which I have recorded above of transmission of hypospadias through six generations fully demonstrates the proposition that hypospadias, among other deformities, cannot always be regarded as an accident or freak of nature.

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Lambeth Palace-road, S.E.

ROYAL MEDICAL BENEVOLENT COLLEGE.—A third perpetual presentation to the Royal Asylum of St. Anne's Society in favour of the orphan daughters of medical men has been established by Mr. J. F. France, the right of nomination being vested in the members of the Council of the Royal Medical Benevolent College, who will immediately proceed to fill it up.

COMEDONES IN CHILDREN.

BY H. RADCLIFFE CROCKER, M.D., M.R.C.P.,
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THE following cases illustrate a condition which is not generally recognised as a disease of childhood, the text-books only describing comedones as they occur at puberty and onwards, from which this affection differs in several particulars. I will first relate some cases, and then briefly comment on them. All the cases occurred at the East London Hospital for Children.

George W——, aged three years and a half, came to the hospital in June, 1882, for whooping-cough and an eruption which had existed for three months. It consisted of innumerable black pin's-head-sized papules, with no inflammation round them, which were evidently comedones, and could be squeezed out, but with more difficulty than the ordinary kind, and the necessary pressure was very liable to set up inflammation in their sites, but they did not often inflame spontaneously; the expressed material was firmer and tougher than usual, and microscopically consisted of epithelium, with comparatively little fat. The comedones were massed together on the upper part of the forehead, especially on the right side, extending for an inch and a half into the hairy scalp; there were several patches in the occipital region, and a few on the right parietal. They were mainly in groups, but on the forehead were so closely set as to give it a very dirty, almost black, appearance. The following cases were in infants: Henry A——, aged twelve months; when he was nine months old groups of closely set comedones appeared on each cheek; there were less defined groups under the chin and angle of the jaw. The child was marasmic and pale. A. M——, aged fourteen months; comedones appeared when he was eight months old, symmetrically grouped on the prominent part of each cheek. The child was brought for rickets.

These are only samples of over a dozen cases that I have seen in my own practice and that of others, so that the condition is probably not a very rare one. The majority were in boys between three and twelve years old; and, in addition to the regions mentioned, it was observed extending from the scalp to the eyebrows, in the sulcus behind the lower jaw, on the shoulder, and in girls limited to the temporal regions. In most cases the papules ceased rather abruptly, and when not too closely set the tendency to group was generally evident. The etiology of this condition is evidently different from that after puberty. The position in most of the boys corresponded with the part where their caps were in closest contact with the skin, naturally suggesting that they had some causative connexion; and, on comparison with the cases where other regions were affected, the common factor was found to be warmth and moisture. This was confirmed by a recent case of a girl of three years old with laryngeal obstruction, probably diphtheritic, where after repeated linseed poultices she presented when I saw her scattered comedones mingled with acne papules and pustules all over the back and the lower part of the chest. This, however, does not cover the whole matter. A short time ago my colleague, Dr. Warner, kindly sent me a brother and sister, the boy with the forehead and scalp affected, the girl with the temples alone involved; further, it was stated, that another brother had it in a minor degree, and that there were several boys at the school similarly affected. This is not the only instance I have known of more than one member of a family being affected, and suggests the possibility of some contagious element, probably bacterial, though I have not found any such organism as yet. Possibly other irritants may produce the condition, though doubtless some predisposition is necessary. Comedones in children differ from those of adults in their being mainly dependent on local causes, on their greater tendency to group, and to be more closely set, in their involving the hairy scalp, and, finally, to their being generally readily amenable to treatment, all that is usually required being friction with a weak soft soap and spirit liniment, or a weak sulphur application may be employed in mild cases, preceded by fomentation with very hot water.

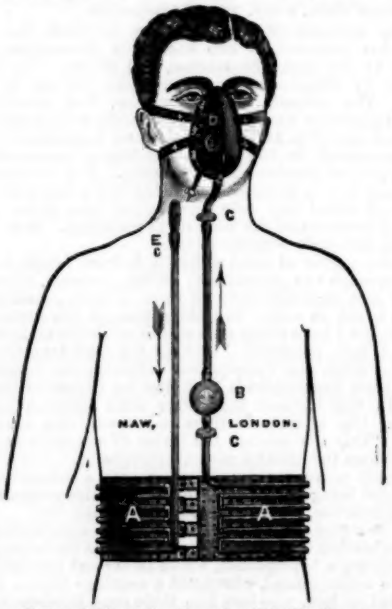
Welbeck-street, W.

KILMARNOCK INFIRMARY.—The late Mr. Andrew L. Clark, of Assloss, has bequeathed the sum of £1000 to this infirmary.

THE UTILISATION OF THE HEAT OF THE BODY FOR THE PURPOSES OF INHALATION AND RESPIRATION.

BY JOSCELYN SEATON, M.D., M.R.C.S.

THE principles and therapeutics of inhalations in chest affections have been so ably and recently brought to the notice of the profession by Drs. Yeo, Hassall, Kay Shuttleworth, and others, that I shall here confine myself solely to setting forth the salient advantages and mode of utilisation of the normal heat of the human body for the purpose of supplying warmed and partially dried air (medicated or otherwise) to the respiratory passages of poitrinaires—an ever-ready agent which hitherto, I believe, has not been utilised. By the employment of the constant and practically equable heat of the human body, I hope to be able to make patent to the profession that we can not only greatly facilitate the administration of medicaments, more especially in an anhydrous condition, but also provide a respirator which will at all seasons supply partially dried air at an almost unvarying temperature. The apparatus consists of a broad



A A, Belt containing tubes through which the air passes and is warmed by the heat of the body. B, Medicament box containing sponge saturated with the prescribed medicament. C C, Union screw joints to facilitate the removal of the medicament box and the substitution of a piece of straight tubing when the apparatus is used as a respirator only. D, Naso-oral face-piece. 11, Inhalation valves. 22, Exhalation valves. 33, Inflated air padding. 44, Elastic bands buckling behind. E, Bougie-pointed extremity of tubing through which the air enters, and which, by being prolonged with an extra length of tubing, may be made to communicate with the outer atmosphere to counteract the closeness of the sick chamber.

belt of perforated chamois leather or fine flannel, resembling an ordinary "cholera" or "rheumatism" belt, containing from four to ten indiarubber tubes (more or less according to the temperature required), made continuous by angular joints of metal or vulcanite in the form of what is known as the "Grecian key pattern." The air, entering at the free extremity, passes through the entire length (say ten to fifteen feet) to a vulcanite box resembling a small hunting-watch, containing a sponge saturated with the prescribed medicament, and thence is conveyed to the respiratory organs by a double-valved naso-oral face-piece (a modification of Dr. Hunter McKenzie's naso-oral inhaler).

When the apparatus is in use as a respirator only, the medicament box is replaced by a short length of plain tubing. The temperature of the air inhaled will of course depend upon the length and calibre of the tubing and the temperature of the air-supply. With an air-temperature of 57° F. and twelve feet of a quarter of an inch tubing an elevation to 80° may be procured, the average result of my experiments being that a minimum rise of from 15° to 20° may be depended upon at all seasons for purposes of out-door respiration; whilst for inhalation in-doors the temperature in the medicament box may be always maintained at or near 80°, sufficient for the vapourisation of carbolic acid, most of the terebinthinæ, and other medicaments in common use. By the extension of the free afferent extremity the closeness of the sick chamber may be readily counteracted by allowing the tubing to communicate with the outer atmosphere through a small hole in the window-frame. The ever-present difficulty of inducing patients to encumber themselves with inhalation apparatus is in this case much lessened, inasmuch as free locomotion is in no way interfered with, and the changes of temperature experienced in passing from room to room, or in travelling to warmer climes, effectually counteracted.

By the use of the above-described inhalation respirator I trust that the business man may be able to proceed from his home to the scene of his daily avocations without encountering any material change of temperature in the air inspired, and whilst performing the duties of his office to resume or discontinue almost instantaneously the treatment prescribed by his medical adviser. As an inhaler I would claim that it is ever ready and portable, whilst as a respirator it affords absolute immunity from the dangers of changes of temperature, enabling a patient in the highest part of the Engadine to inspire the pure mountain air without the inconvenience so frequently experienced from its low temperature. I have confided the construction of the apparatus to the well-known firm of Messrs. Maw, Son, and Thompson.

Ospedaletti, Italy.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem estalia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium

ST. THOMAS'S HOSPITAL.

FOREIGN BODY IN THE AIR PASSAGES; BRONCHO-PNEUMONIA; REMOVAL OF BODY BY TRACHEOTOMY; RECOVERY.

(Under the care of Dr. BRISTOWE and Mr. SYDNEY JONES.)

FOR the report of the following case we are indebted to Mr. W. H. Battle, surgical registrar.

R. B——, a girl aged three years and nine months, was admitted on Oct. 20th, and left cured on Nov. 21st, 1883. On Oct. 12th the child was playing in the garden, when her mother heard her scream. The child ran towards the house, and said that she had swallowed a stone. She coughed violently at frequent intervals, and was taken to a medical man, who gave an emetic and recommended tracheotomy. She was brought to the hospital, but, as she appeared better, the mother took her away again. From that time the child suffered from cough and shortness of breath; the cough, which was said to have been accompanied at times by a peculiar rattling in the throat, had been worse for the last two days.

When she was admitted under the care of Dr. Bristowe, the following was her condition:—"Fair, rather delicate-looking child, with flushed face, and quick, but not distressful breathing; loud rhonchus and sibilus throughout both lungs, with loose râles at both bases. There was no distinct evidence of any obstruction of either bronchus. It was thought that the breath-sounds on the whole were more feeble on the right than on the left side, and that the respiratory movements on this side were less ample than were those on the other. No one portion seemed more affected than the rest of the lung. The tracheal sounds were very noisy, but in no way hissing, nor was there any working of the alæ nasi. The child had occasionally fits of something between hiccough and vomiting, and at the same time became blue and anxious. Temperature 101·8°; pulse 190, of fair strength; respiration 52, regular, and fairly full; urine, sp. gr. 1030, no albumen. She was ordered eight minims of ipecacuanha wine, half a minim of tincture of opium, and two drachms of caraway water every three hours.

Oct. 21st: Both lungs were affected in much the same degree, but the right did not seem to move quite as much as the left.—23rd: Crepitation over both lungs, crepitation at left base very loud and noisy; had a somewhat severe fit of coughing in the morning; was restless and fretful. Mr. Sydney Jones saw the child in consultation in the afternoon, and it was determined that tracheotomy should be performed. The child seemed to be in a good deal of distress, and was anxious-looking. Mr. Sydney Jones accordingly opened the trachea, dividing two or three rings below the cricoid cartilage, and found a stone lying loose on the posterior wall, immediately beneath the incision. This measured five-eighths of an inch in length and was a little over two-fifths of an inch in width, the ends being rounded. Chloroform was administered; there was very little hæmorrhage, and easily arrested. Sutures were inserted through the skin, and the edges brought together over half a split drainage-tube. The wound was dressed with carbolised oil and iodoform gauze. Steam was freely diffused in the apartment by means of a bronchitis kettle. In the evening the child had lost its dyspnœa, but still suffered from frequent loose cough, which had, however, lost its choking character. She had lost the anxious look.—24th: The drainage-tube, which had slipped out during the night, was replaced, air coming through the wound when any accumulation of mucus took place in the larynx. Warm-water dressing was substituted for oil. Slight dulness at both bases, and general loose râles in lungs. Respiration 36; pulse 128; temperature 98·6°. At night the temperature was 100°; pulse 140; respiration 40. Air entered the right lung more freely, quite as well as left.—25th: Dulness over right lung posteriorly, extending up to angle of scapula, with tubular breathing, the latter also heard over the right base in front. Cough troublesome; the temperature varied from 98·8° to 100·4°, the former at midnight, when the pulse and respiration were as on the evening of the 24th.—26th: The child seemed rather better. Stitches removed, and replaced by strapping across the upper part of the wound. Warm sponges placed over the wound. Highest temperature, 100·6°.—27th: Average temperature 100·4°. Evening: Pulse 148, respiration 32.—28th: Temperature varied from 98·8° at 4 P.M. to 101·6° at 4 A.M.—29th: Improving. Temperature varied from 98·2° at midnight to 99·8° at 4 A.M. Evening: Pulse 80, respiration 30; less crepitation in the left lung, loose crepitation at base of the right lung, and little crepitation in front of the left.—30th: Less cough and less difficulty of breathing. The wound closing slowly by granulation; less discharge, but strapping required to keep the edges together; wound gaping.

Nov. 3rd.—Still dulness anteriorly at base of the right lung; general slight bronchitic sounds in each lung, but otherwise they appear normal. There is little air passed through the opening.—10th: The air now passed through the wound.—16th: Wound closed. From this date the improvement was more rapid, and she left cured. On the 2nd, 4th, and 5th the temperature reached respectively 100·8°, 100·6°, 100·2°, but this at irregular times; after that it was normal.

BRADFORD INFIRMARY.

A FORM OF LOSS OF MEMORY OCCASIONALLY FOLLOWING CRANIAL INJURIES.

THE following notes, for which we are indebted to Mr. W. J. Spence, house-surgeon, refer to two cases similar in character to those described by Dr. Crichton Browne in a public lecture delivered in Bradford some three or four years ago, and also to those related by Dr. Joseph Bell in the *Edinburgh Medical Journal* of last year.

(Under the care of Mr. SPENCE.)

On Dec. 28th, 1882, an intelligent boy, aged twelve, was admitted to the Bradford Infirmary, under Mr. Spence, suffering from concussion of the brain. He was one of the unfortunate persons picked out from amongst the débris at the Newlands Mill chimney disaster. The accident occurred about 8.15 A.M., and the lad was brought to the infirmary

some two hours later in a state of complete unconsciousness. There was no external injury, with the exception of an unimportant laceration of the right leg. For five days he lay rolled up like a ball, unconscious of everything. On the fifth day he spoke for the first time, and after this gradually came to himself. He was discharged completely cured shortly afterwards. This patient remembers nothing of the accident, not even going to work the same morning. The last thing remembered was going to a circus on the previous afternoon in company with another boy. They set out from home with the intention of going to an entertainment at the Mechanics' Institute; but it was so crowded that they were unable to obtain admission, and went to the former place instead. He remembered nothing of the performance at the circus, and nothing afterwards; from entering the place of amusement to the time of regaining consciousness his memory was a complete blank.

(Under the care of Dr. RABAGLIATI.)

The second case is that of a fairly intelligent boy, aged fourteen, admitted under Dr. Rabagliati. He had fallen from a viaduct in course of construction in the neighbourhood, and was brought to the infirmary some hours afterwards in an unconscious condition. For three weeks he lay like a log, but about this time he showed signs of coming to. At first he was very foolish—would get out of bed and lie upon the floor until removed by the nurse, throw his plate away, &c. He had ptosis of the right eyelid and slight loss of power in the arm of the same side. He recovered completely, with the exception of some slight ptosis, which still remained. Like the other case, there is a blank in the boy's memory. The last thing he remembers before the accident is saying his prayers the night before. He cannot recollect what he did or saw between this act and the accident next morning. His memory up to this blank period was excellent.

Notes by Mr. W. J. SPENCE.—The following case has been related to me by Dr. Rabagliati. A young lady, very intelligent, a teacher in an institution, went out for a drive with a lady friend. They drove into the country for several miles, and stopped at a roadside inn to give the horse a drink. To enable the horse to get at the water better the blinkers were removed. Just at this moment something frightened the animal, and it bolted with the carriage containing the young lady (the friend had previously alighted). It had not gone far when the carriage came into collision with a wall, and the young lady was thrown violently to the ground. She was picked up in an unconscious condition, and removed to her home, where she was attended by Dr. Rabagliati. There was a scalp wound, and some severe contusions, but no fracture could be detected. She remained unconscious for some hours, and in a semi-unconscious condition for ten days afterwards, but in the end made a complete recovery. In this case also there was a total loss of memory for two or three hours before the accident. The patient remembers putting on her bonnet before starting, but going downstairs, entering the carriage, and the journey are all forgotten. Her memory for events up to this time was accurate.

NEWCASTLE-ON-TYNE INFIRMARY.

ATRESIA VAGINÆ; SUCCESSFUL OPERATION.

(Under the care of Dr. OLIVER and Mr. PAGE.)

JANE R——, aged seventeen years, was admitted in July, 1882, complaining of pain and swelling in the abdomen. Till a year before admission she was healthy. At this time she suffered from cramp-like pains in the abdomen; pains which have recurred regularly every month, attended by fulness in the breasts and associated with sickness. She had never seen any menstrual discharge. On examining the abdomen there was found in its lowest third a pyriform semi-fluctuant mass, dull on percussion and not painful on pressure, which reached to the umbilicus. It had been getting gradually larger, the increase in size being specially noted at the periods of pain and vomiting. The vaginal orifice was occluded. At the apex of either lung there were heard moist crackling râles.

Operation by Mr. PAGE.—Upon cutting through the tissue entirely occupying the space between the urethra and the perineum, about an ounce of thick dark fluid escaped, and the end of the finger passed into a cul-de-sac. The onward progress of the finger was arrested by a firm diaphragm; and, upon this being exposed, it was seen to be perforated in two places. The upper and larger opening admitted a probe for about half an inch only. The lower allowed a probe to pass into a considerable cavity; and through this smaller hole a thin bloody fluid issued slowly. Dissection was made through the diaphragm, and immediately beyond it the tip of the finger impinged upon, but could not be made to enter, the os uteri. No flow followed; and, as the size of the abdominal swelling was not reduced, the os was incised so as to admit the finger into the uterus, when about eight ounces of a material closely resembling meconium escaped, and the abdominal swelling subsided slightly.

Acute metritis with some peritonitis followed the operation, and for some weeks the girl's life was in danger, owing to the presence of abdominal pain, continuous vomiting, high temperature, &c. Ultimately she recovered, and left the infirmary. Menstruation never appeared. The patient died of phthisis nineteen months after the operation.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Myxœdema.

A MEETING of this Society was held on the 8th instant, Dr. George Johnson, President, in the chair. Addresses of condolence with Her Majesty and the Duchess of Albany were passed by the Council and announced to the Fellows by the President. Drs. S. H. C. Martin, Marmaduke Sheild, Wayland Chaffey, and Heneage Gibbes, and Messrs. George Lawson, Bowreman Jessett, John Protheroe, Whitehead Reid, Dennis Dallaway, and Alex. Anderson were elected Fellows.

Dr. JOHN HARLEY read a paper on the Pathology of Myxœdema as illustrated by a Typical Case which was under his care at St. Thomas's Hospital for nearly seven years. The post-mortem examination revealed extensive adhesions and thickening of the pleuræ with fibrous degeneration of one lung, also traces of general peritoneal inflammation, the result of a severe illness after the birth of the patient's last child, ten years before her death. The thoracic ganglia were deeply implicated in the adherent and degenerated pleuræ, and on the left side the ganglia could not be satisfactorily distinguished. Apart from these morbid changes two main facts were obvious. First, the quantity of blood was small; although the heart was contracted and empty, and one lung degenerated and much less vascular than the normal organ, there was no noticeable fulness either of the superficial veins during life or of the great internal veins after death. Secondly, all the tissues were abnormally firm and tough; there was a general increase of connective tissue throughout the body. The amount of mucin contained in the more important tissues and organs was determined. The author is not aware that the proportions of mucin and the other constituents of healthy tissues of various ages have been ascertained, and he has therefore determined this question in respect of another patient, a woman, aged twenty-four, who died of mitral disease. On comparing the analyses in the two cases it appears that the quantity of mucin was nearly doubled in the myxœdemic case. The author, however, hesitates to conclude from such scanty evidence that the mucin was in excess of the normal amount. But he thinks that the question of an increase of mucin sinks into insignificance in face of the unmistakably great increase of connective or fibrous tissue, and to which the increase of mucin, if this should be hereafter demonstrated, may be regarded as secondary. The cerebro-spinal nervous system is evidently very slightly affected, but the sympathetic is in many cases more deeply involved. He referred to a case of so-called "simple atrophic sclerema," but really of fibrous degeneration of the lungs and thoracic sympathetic, published in the fiftieth volume of the Transactions of the Royal Medical and Chirurgical Society, as illustrating this view. The myxœdemic and scleremic conditions in these patients were merely the consequence of severe internal inflammation, experienced years before, and affecting, *inter alia*, the pleuræ and peritoneum, and the sympathetic ganglia adjacent to these membranes. In the two cases referred to, fibrous degeneration of the lung was a notable factor in the disease, but it is of course conceivable that myxœdema,

scleroderma, and its allies may have their origin in inflammatory or other changes exclusively confined to the sympathetic ganglia. If this view of the pathology of the disease be correct, myxœdema cannot be regarded as a specific disease, but merely as a variety of what the author has termed "a chronic cold debility," dependent on depression of the vital functions and frequently associated with fibroid degeneration of the lungs, a condition usually, if not always, traceable to some severe antecedent illness attended by internal inflammation.—Dr. MILLER ORD said that the diminution in the excretion of urea and of the temperature of the body were important facts fully recognised by Dr. Harley. The signs of impairment of the central nervous system were well marked in many cases; alterations of memory and temper were conspicuous in some instances which had fallen within his experience. brain and spinal cord had been shown to possess an increase in the connective tissue as met with in the other organs of the body. There was also to be explained a notable diminution of the thyroid gland. If the frequency with which changes in and about the lungs occurred be remembered, it might be said that myxœdema ought to be almost as common as phthisis. He was somewhat at a loss to comprehend the meaning of the phrase "chronic cold debility." A morbid condition of the sympathetic system was advocated by Dr. Hadden, and he considered that such a view required careful investigation. He did not know how far Dr. Harley would class myxœdema with sclerema. By the "instinct of appropriation" which taught us to discern similarities, sometimes where they hardly existed, some authors had made a very imperfectly understood pathological subject like myxœdema find associations such as chronic Bright's disease, scleroderma, and so forth, which were perhaps scarcely warranted by the known clinical facts.—Dr. RALFE referred to the diminished quantity of blood and to increase in the amount of connective tissue. No doubt there was a greatly diminished metamorphosis of tissues; the irregularity in the quantity of excretion of urinary water disposed of the idea that we had to deal with a case of Bright's disease. Increased arterial tension he had never found in myxœdema, and he would not expect to find such indications in diseases characterised by diminished excretion of urea. The cement substance of connective tissue was composed chiefly of mucin. An increase of mucin would take place *pari passu* with that of other elements—gelatine, chondrin, elasticin—in cases where the connective tissue of the body was hypertrophied. All the members of the connective tissue group of tissues contained collagen and mucin in different proportions. In the embryotic state mucin was in very considerable excess. In osteomalacia we had in bones a condition somewhat analogous to myxœdema. It might be said that these tissues were reverting to their embryotic condition, and so myxœdema might be looked upon as the result of a retrograde change.—Dr. DYCE DUCKWORTH said that he did not fully understand the theory propounded by Dr. Harley. He thought one thing was pretty clear, and that was that the clinical aspect was fairly well known. Different observers viewed the disease each from his own standpoint; the speaker regarded the neurotic aspect of the malady.—Dr. HADDEN thought that the atrophy of the thyroid gland was part and parcel of the pathology of the disease. Dr. Henri Henrot had figured and described the sympathetic trunk as much hypertrophied, and the pituitary body and pineal gland as enlarged, with osteophytes about the tibia and lower jaw, in a case which presented close similarities to, if it were not identical with, myxœdema.—Dr. JOHN HARLEY, in reply, said that in regard to the central nervous system he had only written upon the cases which he had seen himself. He did not recognise any defect of the cerebro-spinal system. In some cases of chronic lung disease he had found atrophy of the thyroid gland. He would say but little about the relationship of the thyroid gland in the disease. In reply to Dr. Duckworth, he said that degeneration of some portion of the sympathetic system, and chiefly the thoracic portion, was held by him to be the pathology of the disease. Chronic pleurisy was no doubt the commonest cause of such a condition; but it was not to be supposed that every case of pleurisy was severe enough to implicate the sympathetic ganglia. "A chronic cold debility" was distinguished from the chronic debility of phthisis, during which there might be pyrexial periods. Mucin was a constant accompaniment of connective tissue, and so he was at one with Dr. Ralfe on this point.

PATHOLOGICAL SOCIETY OF LONDON.

Cirrhosis of the Liver.—Abscess of the Brain.—Primary Cancer of the Liver.—Cerebro-spinal Meningitis.—Congenital Tumour of Back.—Enchondroma of Lung.

THE ordinary meeting of this Society was held on Tuesday last, Mr. J. Whitaker Hulke, F.R.S., President, in the chair. The attendance of members was small.

Dr. CHARLEWOOD TURNER read notes of a case of Cirrhosis of the Liver. To the naked eye the evidence of well-marked cirrhotic changes, with broad bands of connective tissue, were present. These broad bands were fringed at their margins with an abundant growth of newly formed bile-ducts. The liver cells were much degenerated and fattily infiltrated in places. At the periphery of the hepatic lobules a fibro-nucleated tissue existed. The presence of many detached liver cells embedded in a blood-clot, which occupied many branches of the portal vein, was a remarkable feature. Capillary vessels and epithelium of bile-ducts could also be detected in the blood-clot. It would seem that these structures had been taken up by the blood in the portal veins and arrested in their course along the interior of these channels. In the specimen, a portion of blood-clot was still seen to be adherent to a lacerated surface. We must suppose that the laceration of the liver occurred shortly before death and led to the production of embola of hepatic tissue. These particles might have been propelled into the patulous portal veins and hepatic veins. The varying pressure in the portal circulation might explain their introduction. He had not discovered any hepatic tissue in the hepatic veins; if any tissue had been introduced the particles would probably have been spread over the whole extent of the ramification and so have escaped observation. The bearing of these observations on fat embola in lungs and other organs was pointed out. Dr. Hamilton had shown how easy it was for fat-particles to be taken up by patulous venous channels as met with in solid bone. It was suggested that other matters than oil-globules and other structures than bones, might also be the source of embola. The fatal issue of some cases of laceration of solid organs might also receive an additional explanation. The specimen seemed to show that the excessive growth of bile-ducts met with in "biliary cirrhosis" resulted rather from the peripheral irritation produced by the cirrhosis; the broad bands of connective tissue showing vascular channels, but the bile-ducts only being in excess at the margin of the cirrhotic tissue. He looked on this over-growth of bile ducts as a secondary phenomenon, as a collateral effect comparable with the development of glandular acini in a sarcoma of a gland such as the mamma. The rectilinear arrangement of hepatic cells could be seen, but no direct continuity between the flat epithelium of the ducts and the cubical hepatic cells could be traced such as Woodhead and others described.—Dr. CARRINGTON inquired whether it was possible that the hepatic cells were accidentally introduced into the blood-clot in the course of cutting sections.—Dr. GOODHART spoke of the real nature of "biliary cirrhosis." Some authors considered that proliferation of the bile-ducts occurred; other pathologists held that the ducts developed from the liver cells. He believed that "biliary cirrhosis" was simply an "acute cirrhosis."—Dr. TURNER, in reply, did not think it possible that the liver cells could have been introduced by accident into the clot. He agreed with Dr. Goodhart's view of the nature of "biliary cirrhosis."

Dr. CAYLEY read a paper on a case of Abscess of the Brain. A young man, aged eighteen, had suffered from pleurisy and hæmoptysis for some time. Later on, headache, loss of power of the left arm and leg, with vomiting, set in. On admission to hospital, frontal headache, with complete palsy of the extensors of the wrist, and some paralysis of the flexors of that joint, with weakness of the left leg, were observed. There was no disturbance of sensation. The left lung was diseased at its base; the pulse was 80 and regular, and the bowels constipated. The urine showed an excess of phosphates, and a trace of albumen. A chronic convulsion of the left leg, left side of trunk and left arm, but not of the face, occurred, which the man attempted to arrest by grasping the part with the other hand. The vomiting and headache continued. The pulse became slow (44), and the temperature 96·6°; the pupils unequal; the edges of the optic disc somewhat indistinct; and then after a few days death ensued.

The right hemisphere was destroyed in part by a large abscess, which occupied the centrum ovale and reached upwards to the ascending parietal convolution. A lining membrane had formed, and the abscess was no doubt not recent. The left temporo-sphenoidal lobe presented a similar abscess. The left lung was collapsed, tough, and fibrous, and contained many cavities. He regarded the cerebral abscesses as of embolic origin from a thrombus in the lungs.—Mr. HULKE commented on the subnormal temperature of this case. In six cases of intra-cerebral abscess of traumatic origin he had always found subnormal temperatures.—Dr. EWART referred to the fact that both abscesses were within the area of distribution of the middle cerebral artery. He thought that there might have been a direct absorption and distribution of pus by the vascular system.

Dr. TIVY read notes of a case of Primary Cancer of the Liver, which occurred in a woman aged fifty-one. In 1861 a lump was noticed in the right side which was supposed to be due to fæcal accumulation, but which had never disappeared, and was always painless. Within the past two years this lump had rapidly grown in size, and emaciation had set in. There had been much mental worry during the past two years; the patient was of temperate habits. When first seen the abdomen was largely distended and dull over the right side, and tympanitic to the left, and a hard nodulated mass could be felt in the right side, extending from the ribs to eight inches below the umbilicus. There was no ascites and no albuminuria. Pain was almost entirely absent during the whole course of the illness. Epileptiform attacks set in, and the patient became unconscious and died. At the autopsy the liver weighed 9 lb. The organ was cancerous almost throughout, the right lobe being diffusely infiltrated; numerous small tumours were present in other parts, some of spherical, others of racemose shape; the consistence varied in different parts. The freedom of infection of the surrounding serous membranes was mentioned as remarkable. The portal vein was not obstructed, and the gall-bladder and ducts were free. Microscopically a large amount of fibrous stroma was seen, whilst the greatest portion consisted of abnormal nucleated cells, merging into natural liver tissue in many places. The tumour was probably of scirrhous nature in the first instance, and had taken on an encephaloid growth during the last two years. The difficulties of diagnosis, the long duration of the disease, the good health of the patient, the absence of pain, jaundice, ascites, and of generalisation of the disease, with the strong family history of phthisis, were the chief features of the case.

Dr. CARRINGTON described two cases of Cerebro-spinal Meningitis. The first patient was a Swedish seaman, aged twenty-seven. Mental dulness, irritability, headache, restlessness, insomnia, weakness, languor, and unsteadiness of gait had existed for two weeks before admission. There was marked rigidity of the neck, and on being moved this was seen to extend to the back. Herpes labialis appeared later on, and on the trunk corresponding to the seventh, eighth, ninth, and tenth intercostal spaces purplish erythematous patches with petechial spots were observed. At one time all the reflexes were absent and remained so. Incontinence of the excreta, double optic neuritis, and coma set in and death followed. The temperature was febrile throughout. At the post-mortem examination lymph was found at the base of the brain, and on the anterior surface of the spinal cord just above the cauda equina, and on the posterior surface from the seventh dorsal nerves downwards. The second patient was also a Swede, aged twenty. Frontal headache, mental dulness and pain down the back, were complained of for one week. The temperature was 101°, the pulse 57, the neck stiff, and the head considerably retracted, especially on movement. Facial paralysis and partial paralysis of the right arm, with optic neuritis, were noted, and death ensued on the comatose state. At the autopsy the convolutions of the brain were found to be markedly flattened, the sulci obliterated, the visceral arachnoid dry and sticky. The subarachnoid space in front of the pons was distended with clear fluid. The Sylvian fissures were matted together. The lateral ventricles were greatly dilated with turbid fluid. The corpus callosum and neighbourhood were soft and diffluent. The membranes of the spinal cord were more adherent and sticky than usual; a small amount of lymph was found on the lower two inches of the posterior surface. There was no tubercle in either case, and nothing special bearing on the etiology of these cases could be elicited.—Mr. B. JESSETT gave a brief outline of three cases which occurred in sailors who had been aboard a vessel presumably in an insanitary condition. The symptoms were at first like those of malignant typhoid.—Dr. CHARLEWOOD TURNER referred to two cases which he had seen in March—i.e., about the same time as those of Dr. Carrington. There were pain in the abdomen, vomiting, delirium, and almost complete unconsciousness. The neck and back were rigid when the patient was held in the sitting posture. In one case there was weakness and loss of sensibility in the left leg, and in this instance the right side of the brain showed in the neighbourhood of the fissure of Rolando a large accumulation of pus. The second case had no history, and was brought to the hospital from a police-station in a comatose state.—Mr. ERNEST CLARKE briefly narrated the case of a child six weeks old who suffered from vomiting, dyspnœa, and irregular breathing, with the thumbs turned into the palms, but no rigidity of the back or neck. Death occurred in two days. At the autopsy the signs of purulent cerebro-spinal meningitis were found, but all the other organs were healthy.—Dr. CARRINGTON, in reply, said that his two patients did not come from the same place, and certainly not from the home at Stepney whence one of Dr. Turner's cases had come. There was nothing to account for the rigidity of the neck, or rather there was no lymph about the medulla oblongata. The lymph did not extend below the pons.

Mr. DAVIES-COLLEY related the case of a Congenital Tumour of the Back, which he had removed from a boy, aged sixteen, in January last. It was the size of a pin's head at birth, and had gradually grown all through his life. A small sore formed about a month before admission to the hospital. A flat, mushroom-like growth was seen in the middle of the back, measuring five inches from above downwards, four inches and a half from side to side, and two inches and a half raised above the level of the skin; it was pedunculated; the pedicle was, however, very short. The skin over the tumour was somewhat cicatricial in appearance and intersected by large veins. It was found to be made up of five or six imperfectly separated lobules; the consistence was firmer than that of a lipoma; the surface had a coarsely granular feel. No recurrence had taken place up to the present time. On section a ground substance of white fibrous tissue was seen, in which loculi of various sizes were embedded; each of the loculi contained glandular-looking bodies of a yellowish pellucid appearance, which shelled out of the loculi, leaving ovoid cavities. Microscopically were to be detected delicate, somewhat fibrillated connective tissue, in which were embedded a number of fusiform cells with elongated nuclei, suggesting the appearance of involuntary muscle fibres. The growth was a fibro-sarcoma, which had probably originated in a poly-cystic tumour. No cartilage, bone, or other tissues were found in sections from various parts.—Mr. BUTLIN said that such poly-cystic growths were perhaps best described as lymphatic cavernous tumours, for the spaces contained at first a clear serous fluid and afterwards became filled with intra-cystic growth. Whether the endothelial cells proliferated, or whether there was an ingrowth of the fibrous tissue, it was not always easy to say. There had been no spreading into surrounding tissues in this specimen, which he regarded as probably having developed by ingrowths of the fibrous tissue rather than by proliferation of the endothelial lining.

Dr. NORMAN DALTON showed a specimen of Chondroma of the Lung and Lymphatic Glands taken from a man aged forty-four, who suffered from pain in the right chest and shoulder and down the right arm for three months. The glands above the right clavicle were found enlarged one month before death. Subsequently, there was œdema of the right arm and thrombosis of both external jugular veins. A tumour, the size of an apricot, was situated in the upper lobe of the right lung, just above its root. Great enlargement of the mediastinal glands existed; the walls of the large veins were much involved. Microscopically, masses of hyaline cartilage occupying generally the walls of the air cells were detected, the cavities being filled with large cells like those of embryonic cartilage. Sections of the glands exhibited cells similar to those in the lungs, but they were placed chiefly in lacunæ formed by rather broad bands of fibrous tissue. A small portion of a gland had undergone a mucoid change.

The following card specimens were shown:—Dr. Charlewood Turner: (1) Duodenal Ulcer with Fatal Hæmorrhage; (2) A Similar Specimen; (3) Ulceration of the Pylorus; (4) Spine, from two cases of Cerebro-spinal Meningitis. Dr. Hale White: Hour-glass Constriction of Stomach. Mr.

Arbuthnot Lane: (1) Fracture of Hyoid Bone with deformity of Cricoid and Thyroid Cartilages; (2) Fracture of Seventh and Eighth Costal Cartilages; (3) Diphtheria of Larynx, spreading upwards to Fauces. Dr. Carrington: Cancer of Gall-bladder. Dr. Robert Barnes: Calculus from Vagino-urethral Septum. Mr. Bland Sutton: (1) Dissection of Stump two years after amputation; (2) Separation of Epiphysis of Fibula.

HARVEIAN SOCIETY OF LONDON.

AT the meeting on March 20th, Mr. G. P. Field, President, in the chair,

Mr. HENRY SEWILL read a paper on Spasm of the Muscles of the Face and Cataract due to Dental Irritation. The subject was a middle-aged lady, labouring under inveterate neuralgia, who during late years had suffered from a series of alveolar abscesses, and in 1881 had complained of recurring pains in the right eye, complicated since Jan. 1882 with persistent spasm of the right side of the face. In July, 1882, partial loss of sight from right cataract, and partial closure of the same eye from spasm of the orbicularis, were superadded. In July, 1883, at the request of her medical adviser, Dr. W. Hoffmeister, she consulted Dr. Ferrier, who, suspecting the symptoms to be due to dental disease, prevailed upon her to submit to the extraction of the offending teeth. Mr. Sewill found in the upper jaw the stumps of some molars, and artificial bicuspids, incisors, and canines attached to a vulcanite plate, which had not been removed for years. The right canine was completely broken down, and pus exuded from several fistulous openings in the gums. The lower teeth were hidden beneath an enormous mass of tartar. The treatment consisted in the extraction of all the upper teeth at two sittings, and in gradual removal of the tartar from the lower teeth. Within two days of the extraction the facial spasm entirely disappeared, but no change took place in the damaged lens. Mr. H. Power had lately stated in a paper read before the Odontological Society that dental lesions are very frequently the cause of diseases of the eye. Threatening glaucoma, especially when associated with ciliary neurosis, and with obscure temporal and orbital pain, mydriasis, myosis, sudden paralysis of some of the orbital muscles, and loss of sensation in the absence of cerebral symptoms, phlyctenulæ and corneal ulcers (especially in children), sudden failure of accommodation and exophthalmos, were conditions calling for careful inspection of the teeth. To these should now be added cataract. Mr. Power had pointed out various ways in which irritation originating in the teeth might reach the eye:—(1) Inhibition; (2) trophic or vaso-motor influence; (3) extension of neuritis; (4) reflex irritation or sympathy. The case recorded above was probably an instance of trophic disturbance.—The PRESIDENT called attention to the frequency with which the ear was affected from the same cause; the subject was fully discussed in a recent work by Dr. Samuel Sexton of New York.—Mr. F. TREVES referred to cases similar to that brought before the Society, which had occurred in the practice of Mr. Hilton and Dr. G. Johnson. Addressing himself to the anatomical aspect of the question, he criticised the theories suggested by the author for an explanation of the nervous mechanism at work. The case might lend support to the view that a nervous communication existed between the second division of the fifth nerve and the lenticular ganglion.—Mr. JULER, from observations upon a large number of cases in which eye affections were associated with disease of the teeth, was of opinion that the latter were even more commonly the cause of ocular and intra-ocular lesions than Mr. Sewill appeared to consider. As illustrative cases he would mention that of a young lady, aged seventeen, who was sent to him by Dr. Jennings of Notting-hill. She was otherwise in good health; the right eye was slightly hypermetropic, but the vision good; the left eye was very hypermetropic, but the vision bad, and the ophthalmoscope showed patches of recent choroiditis at the posterior pole of this eye. No cause could be found for the lesion until her dentist, Mr. Percy May, informed him that she was suffering from a carious tooth in the left upper jaw. The tooth was extracted, with considerable improvement in the vision. Another case had occurred lately in a young lady who was sent to him from Bedford. In this case the vision of the left eye was reduced to the perception of fingers only; she had evident symptoms of inflammation of the ciliary region, and the vitreous was crowded with large membranous and fine floating opacities. No cause could be found for the ocular trouble until a history of neuralgia led to the discovery of carious teeth. She had promised to have the teeth extracted, and Mr. Juler had no doubt that the eye would afterwards improve. A delicate woman, aged fifty, consulted him at the Westminster Ophthalmic Hospital a year ago on account of persistent jactitation of the right eyelids. The case was an interesting one, inasmuch as there was a "point of election" just opposite the infra-orbital foramen, over which firm digital pressure had the effect of immediately stopping the movements. A carious tooth in the upper jaw of the same side was extracted, and with it disappeared all the facial trouble.

Mr. F. TREVES read a paper on Certain Forms of Intestinal Obstruction that may follow Hernia. Although after complete reduction of a strangulated hernia, and after recovery from the operation, as a rule, no further intestinal troubles may be expected, apart from such as depend upon fresh accidents to the rupture, certain forms of intestinal obstruction might supervene on such reduction:—1. Stricture of the intestine due to cicatrisation after ulceration or sloughing of the mucous membrane, or to a form of contracting peritonitis. From the collected cases it would appear that neither the seat of the hernia nor the duration of the strangulation, nor the nature of the operation has certain or definite concern in the production of these strictures. 2. Obstruction due to adhesions. The herniated loop may become adherent to the parietal peritoneum and cause occlusion by "kinking," or the adhesions may lead to "bands" that may be the means of producing obstruction. Omental bands are also common after certain herniæ. 3. Obstruction by the formation in the bowel of a rigid loop. Several examples of this form of obstruction were given, with examples of a fistula bi-mucosa consequent upon injuries received by the strangulated bowel.—Mr. GANT took a different view from the author of the paper with regard to the origin of stricture of the intestine and looped constriction as forms of intestinal obstruction resulting from hernia. They were not subsequent conditions, but commenced from the time of operation, owing to the indentation often left upon the bowel at the seat of stricture, when the strangulated portion had been inadvertently returned into the abdomen in that condition. Hence the great importance of the rule he always observed, that of gently drawing down the gut and of effacing the indentation by gentle manipulation before returning the part into the abdomen. If this constriction cannot be thus relieved, the previous division of the stricture would only half complete the operation and the prognosis would be proportionately unfavourable. After the reduction of enterocele without operation, it was more than probable that similar forms of intestinal obstruction originated in like manner, and this pathological explanation would indicate the propriety of resorting to operation to discover and release any such constriction, even when reduction could be effected by taxis, provided that the duration of the strangulation rendered it probable that plastic constriction might have supervened. If the bowel were then returned, the symptoms of strangulation would probably continue, or intestinal obstruction eventually result.—Mr. COWELL wished to testify to the value and interest of Mr. Treves' communication. If it were possible to question any part of the paper, it might be the statement that the duration of the hernia had no definite influence upon the liability to subsequent obstructions. He (Mr. Cowell) thought that some of the forms of obstruction, and especially those produced by bands of adhesion, were much more likely to be found in old herniæ. In many patients, again, several different portions of intestine in succession found their way into the hernial sac, and were liable to be pressed upon, each of them in turn becoming the seat of some inflammatory change and exudation.—Dr. SYMES THOMPSON wished to hear the opinion of the author of the paper as to the desirability of adopting special rates in life insurance for cases of hernia. Fibrous bands similar to those described in the peritoneum, as a result of former adhesions, were frequently seen in the pleura from the same cause.—Mr. PEPPER gave the history of three cases of Acute Obstruction dependent upon the pressure or traction of inflammatory exudations. The first of these, which had been mentioned by Mr. Treves, was that of a patient under the care of Mr. Heath at University College Hospital. In the course of an abdominal exploration a pelvic abscess was opened. The peritoneal cavity was

washed out and recovery ensued. In the second case Mr. E. Owen performed colotomy for malignant stricture of the rectum. At the end of a week or ten days symptoms of acute obstruction supervened. Post mortem it was found that a coil of small intestine was adherent to the colon at the seat of obstruction, and beneath this coil another had slipped and become strangulated. In the third case, one of strangulated femoral hernia, he had himself resorted to herniotomy. After an interval of several months the gut again descended and became acutely nipped, requiring a second operation. The patient succumbed, and at the autopsy a knuckle of bowel was discovered twisted upon itself and its lumen greatly narrowed by adhesions, which had in all probability dated from the time of the former strangulation.—Mr. TREVES having replied to the various speakers, the meeting was adjourned.

ACADEMY OF MEDICINE IN IRELAND.

AT a meeting of the Surgical Section held on the 8th of February,

Sir GEORGE PORTER read a paper on the subject of Foreign Bodies or Loose Cartilage in the Knee-joint, the interest of which to the practical surgeon he pointed out: first, as regards their presence in an articulation which, in reference to size and utility in locomotion, was the most important in the body; and, secondly, owing to the excruciating pain and oft-recurring attacks of inflammation their presence so frequently produced by getting locked between the articulating surfaces of the bones, rendering the life of the patient most miserable, and preventing him from following his usual avocations or indulging in any form of active exercise. He then gave a *résumé* of how these bodies are formed in the knee-joint, stating that they varied in number, size, and colour. Having mentioned the symptoms and treatment, he described two cases of foreign bodies in the knee-joint that he had recently cured by the direct incision, with full antiseptic precautions. The first case was that of a soldier of the 5th Dragoon Guards, who suffered from a loose cartilage for the last four months. The second was that of an eminent Dublin gunsmith who had had a large pistol bullet lodged within his knee-joint for the last thirteen years. Both cases were most successful. Sir George Porter paid a tribute to the value of antiseptic surgery, observing, "These two cases, I consider, might be received with interest by the Academy, and I think are additional proofs, if such were required, of the great advantages of antiseptic surgery. In my student days a wound of the knee-joint, with escape of synovia, was often followed by amputation or death. Now, without fear, we cut into the knee-joint under the carbolic spray and other antiseptic means, thus stamping on Listerism the verdict of almost universal success."—Mr. STOKES emphasised the surgical importance of the cases Sir George Porter had brought under notice. The second case was of special importance as confirming the statement of Sir William Mac Cormac in a lecture in New York concerning the principle long neglected by military surgeons of not interfering immediately with gunshot injury involving any large articulations. His vast experience in two campaigns entitled him to lay it down as far the best surgery not to probe the wound too freely and make diligent search for foreign bodies immediately on the reception of injury, but to wait until matters got into a quiescent state, and then, if the foreign body became troublesome, cut down upon it. The two cases also showed what great things could be done by following the Listerian method.—Mr. ORMSBY, having been present at one of the operations bore testimony to the difficulty experienced in fixing the loose cartilage in the case of the soldier.—Mr. BENNETT, while appreciating antiseptic surgery, cautioned practitioners against being too ready to rely on its efficacy in opening the knee-joint, or any other. He protested against the universal acceptance of Listerian treatment—for instance, in a case where the presence of the foreign body was the result of rheumatic arthritis.—Mr. MILES thought Listerian enthusiasts took too much credit for the success of that treatment.—Sir GEORGE PORTER, in reply, agreed with Mr. Bennett that a rheumatic case should not be interfered with.

Mr. THOMSON read a paper on Pistol Wound of the Cerebellum. The subject was a detective officer, shot in an affray. There were two wounds: one in the occipital bone, about an inch to the right of and an inch below the occipital protuberance; the second in the left arm. The apex of a bullet was found on the right margin of the bone wound in the skull. The right lobe of the cerebellum corresponding to the wound was crushed by fragments of bone and lead to the depth of half an inch. There was a clot between the right parietal and the dura mater, and on the inner surface of the same bone the mark of impact of lead. The base of the bullet could not be found for some time, and it was then discovered embedded to its own depth only in the brain substance of the left hemisphere at the anterior and inferior portion. The fragment had evidently passed between the dura mater and the vault of the skull from right to left. Mr. Thomson discussed these questions: 1. Could a person standing in the position of the assailant have inflicted the wound on the back of the deceased's head? 2. Could a person with such a wound of the cerebellum have advanced upon his assailant, as it was proved deceased did, after the first shot was fired? 3. Is a wound of the cerebellum immediately fatal? He believed that the wound could have been inflicted; that it was possible that a person so struck could advance, though in a "drunken" manner; and that such wounds were not necessarily fatal.—Mr. BENNETT called attention to two points: first, that of a bullet being cleft upon the bone, and so misleading the investigation; and secondly, the fact that the cerebellum could be wounded superficially, and it might be deeply, without phenomenon.—Dr. HENRY KENNEDY said it was not the wound of the brain, but the hæmorrhage, that did the mischief.—Mr. LENTAIGNE corroborated Mr. Thomson's account of the post-mortem examination, at which he was present, but differed from him as to the bullet having travelled between the dura mater and the bone, there being no lead streak along the supposed track. The cases established that the man might have received the head wound first; but from the position of the parties he thought it more probable the other was first.—Dr. M'ARDLE mentioned two cases showing that the cerebellum could not be extensively injured without coördination being impaired.—Mr. ORMSBY saw no difficulty in believing that the bullet took the course indicated by Mr. Thomson.—Dr. FRASER held that knowledge of medical cases would do little to settle the question of the locomotion existing following a wound of the cerebellum.—Mr. CORLEY arrived at the conclusion that no condition of the brain from injury or disease would indicate what capacity the patient had mentally or physically before death. A man through whose head a bullet passed felt as if he got a cut of a whip.—Dr. HUSTON mentioned that in dissecting a subject he found the whole prelateral lobe of the cerebellum degenerated, being almost entirely composed of a cyst, and on inquiry he ascertained that the only symptom exhibited was moroseness of temper.—Mr. THOMSON said that as to the course of the bullet, he could not accept Mr. Lentaigne's objection. At one point on the inner side of the vault of the skull there was a bullet stain between the dura mater and the skull. He had avoided any expression of opinion from prudential reasons beyond discussing the abstract questions raised on medico-legal grounds. If the charge of murder were to be sustained, the accused must have fired the first shot. The deceased had a second wound on the arm, which was not mortal.

At a meeting of the Subsection of Public Health on Feb. 14th,

The PRESIDENT delivered an address reviewing the Parliamentary work of the past year relating to public health and social questions, and giving his views on pending measures of a kindred nature.—On the motion of Dr. CAMERON, seconded by Dr. J. W. MOORE, a vote of thanks to the President for his address was unanimously passed.

Dr. H. C. TWEEDY read a paper on State Control of Chronic Inebriates. The subject, he said, was beset with difficulties, there being in the minds of many a deeply rooted prejudice against any measures that would interfere with the liberty of the subject, or afford unprincipled persons an opportunity of putting troublesome relatives out of the way. In answer to the first objection, it was urged that the rights of individuals should occupy a secondary place to the peace and well-being of the community. Dipsomania was a form of insanity, as evidenced by the utter absence of moral sense, self-control, and self-respect, while duplicity and cunning characterised the diseased. The process of self-destruction was slow but sure, and practically might be

considered as a species of suicide. In answer to the second objection, he submitted there was no greater danger of unjust detention of the inebriate than of the lunatic. It was exceedingly improbable that two medical men of integrity would lend themselves as accomplices to such a fraud. Having sketched the history of the movement from its origin down to the Habitual Drunkards Act, 1879, he summarised the three reports of the Inspectors of Retreats for 1880-81-82, showing that since the passing of the Act only three licensed under its provisions had been opened, and of these one was now closed, while the number of patients admitted in the three years was fifty-two for the whole of the United Kingdom. The weak points in the Act were:—(1) Its purely permissive character; (2) the absence of any provision for the detention of paupers; (3) the limitation of the Act to ten years, and the exclusion of the proprietors of lunatic asylums from obtaining licences to receive patients under the Act, thereby placing an effectual barrier to private enterprise in founding retreats.—Dr. DUFFEY said nobody was more cognisant of the defects of the Act referred to than the member for Glasgow himself, who had introduced it in the House of Commons. Unfortunately, in its passage through the House of Lords it had been considerably emasculated. The real defect in the Act was its limitation to ten years; for it would be absurd to suppose anyone would spend money in starting an institution on the probability of the measure being renewed by Parliament.—Dr. HENRY KENNEDY remarked that in the results reported from America he did not hear of any cases that were really cured, and he invited explanation as to whether or not there had been any absolute cures after a year's confinement. The association of inebriates with the inmates of a general lunatic asylum would have a prejudicial effect, as people would not go into a place where there were lunatics. Medical men in practice knew that the number addicted to drink was exceedingly great, and it was lamentable to see persons likely to be benefited allowed to follow their own vicious instincts.—The PRESIDENT, in confirmation of Dr. Duffey's remarks, said the most important provisions of the Act were destroyed, some no doubt in the House of Commons, but the principal in the House of Lords, and its failure was mainly due to the limited period of its operation. As pointed out, no one would put money into a concern that would last only ten years. The great success of some of the institutions in America was due to the fact that compulsory and voluntary seclusion were combined. Those who did not choose to go in ran the chance of being put in by their friends. As a member of the Commission on Prison Dietary he visited a great number of prisons in Ireland, and he was astonished at the number of persons confined for crimes which had been produced directly or indirectly by drink.—Dr. TWEEDY, in reply, said that it was desirable to have retreats for dipsomaniacs, and he advocated the utilisation of lunatic asylums on the principle of using existing means until better were provided. Dr. Kennedy had rightly concluded that the number of cures in America was inconsiderable. In his own experience of individuals with this form of insanity, he saw no permanent cure, except where very early treatment was adopted, but there were no means of keeping dipsomaniacs under control for a proper period.

MIDLAND MEDICAL SOCIETY.

AT the meeting held at the Medical Institute, Birmingham, on April 2nd, Dr. Bodington, President, in the chair,

Mr. EALES read a paper on Orbital Cellulitis and Abscess, and recorded several instructive cases which had come under his care. While not denying that this condition might occur spontaneously, more especially in the rheumatic and gouty, he thought that if traumatism, erysipelas, and pyæmia were excluded on the one hand, and disease in the neighbouring bones and cavities on the other, that few cases would be left to be classed as spontaneous. The teeth should always be carefully examined, as they often caused the disease. Loss of sight from atrophy of the optic nerve often followed these cases, and was probably due to optic neuritis or to thrombosis of the retinal vessels.

Mr. CHAVASSE showed a much Hypertrophied and Sacculated Bladder, taken from a patient aged seventy-one, who for many years had suffered from a tight urethral stricture. Perineal section was obliged finally to be resorted to, and pneumonia proved fatal twelve days after the operation. The saccules were three in number, the largest two being of the size of a hen's egg, the smallest equal to the dimensions of a walnut. No calculi were present. The kidneys of the patient were slightly granular.

Mr. HASLAM exhibited a boy, aged thirteen, with Enchondromata of the Fingers of the Right Hand and Forearm. It was noticed first on the ring finger, when he was about four years of age, and attributed by the parents to an injury. The forearm is about one inch and a half shorter than the left. There is a growth at the lower end of the ulna, another on the olecranon, and the head of the radius is pushed forewards on to the anterior aspect of the humerus, apparently by another growth in the neighbourhood of the capitellum, but notwithstanding this dislocation, the movements of the forearm are as free as those of the other side.

Mr. PRIESTLEY SMITH exhibited a series of Perimeter Charts from patients suffering from Reflex Amblyopia. The condition was characterised by a variable concentric contraction of the field of vision. It had given rise to much speculation. Charcot had attributed it to central lesion, but there was reason to believe that it was in all cases a true peripheral anæsthesia, caused by reflex contraction of the bloodvessels which nourish the retina. Reflex amblyopia appeared to imply an over-sensitive state of the nervous system, together with some determining or exciting cause. The exciting causes in the cases exhibited were fright or shock in one, excess of brain-work at school in two, extraction of molar teeth in one, injury of the fellow eye in one, and disease of ovaries and Fallopian tubes in one. In the last-named case one eye had been permanently blinded by thrombosis during temporary lowering of the ocular circulation, and the other was many times threatened in the same manner, but recovered completely after removal of the ovaries and Fallopian tubes by abdominal section. The operation was performed in December last by Dr. Malins. In several of the charts the characteristic tendency to rapid fatigue of the retina while under examination was visible in the peculiar spiral form taken by the line bounding the field of vision.

Dr. SUCKLING showed pulse tracings taken with Dudgeon's instrument, from cases of mitral diseases, aortic disease, pneumonia, aneurism, atheroma, Bright's disease, and constipation, and he pointed out the use of the sphygmograph in localising thoracic aneurisms and in the prognosis of pneumonia.

Reviews and Notices of Books.

A Manual of Psychological Medicine and Allied Nervous Disorders. By EDWARD C. MANN, M.D., Member of the New York Medico-Legal Society. Pp. 699. London: J. and A. Churchill. 1883.

A PERUSAL of this volume reveals the fact that an enormous amount of research has been carried out by the author in order to present to the profession a digest of most of what is known of insanity in its medical, legal, and social aspects. The lengthy preface, which is written in admirable style, shows the thorough grasp and liberal spirit with which the writer has prosecuted his work. At the onset an energetic protest is entered against the pernicious system of forcing the intellect at the expense of the natural development of the nervous system. This comes as a timely warning when the tendency is so strong, both in America and this country, to educate children irrespective of their physical powers and mental receptivity. The opening chapter is devoted to a consideration of the history and classification of insanity. Others follow on etiology, diagnosis, and treatment; civil incapacity; general paralysis, idiocy, and dementia; criminal responsibility; morbid anatomy and pathology; treatment; expert testimony; codification of the criminal common law; evolution of insanity and neuroses; and, lastly, the psychology of crime. This incongruous grouping and unnatural sequence we consider the weakest point in a generally excellent treatise. The defect, however, may be remedied in a future edition. Of the four appendices, the first, which occupies forty pages of closely-printed matter, consists of a *résumé* of the legal

enactments and procedure as adopted in the several States of the Union; whilst the last is a copious index of the literature of diseases of the mind. As a matter of course, the author condemns the system of restraint in the treatment of lunatics. He argues strongly in favour of the appointment of expert commissioners who shall exercise a supervision of asylums, and determine the medical questions in cases of alleged criminal irresponsibility. The letterpress is good, and the phototypes of the physiognomy of some of the more pronounced of mental disorders well executed, but the plates depicting minute pathological changes of the nerve centres might, apart from the text, lead one to suppose that the author had introduced some sketches of lunar phenomena.

Handbook of Electro-therapeutics. By WILHELM ERB. Translated by Dr. PUTZEL. London: Sampson Low, Marston, Searle, and Rivington. 1883.

WHAT ought we to find in a work on electro-therapeutics? The frame of mind represented by this question is, at all events, a good one to have when taking up a new book on the subject. The answer to the question will, no doubt, largely rest with the interrogator. It will depend very much upon his knowledge of the subject, and upon his opinions on the value of its various portions. But it is not difficult to take, so to speak, an average view; by which is meant the estimate of a representative clinical physician of the present day. Such an individual would give something like the following heads which ought to be incorporated in a work on electro-therapeutics. A chapter indicating the chief instruments employed, with their methods of action; a section on the physiological teachings related to the subject; another department dealing with the phenomena as observed in the healthy body—in this would be included a description of the action of the different modes of electricity on all the organs, with any general principles which might be drawn therefrom. And having these, there should follow a few chapters on the benefits likely to be derived from the agent in processes of disease. These would naturally be occupied also with the phenomena observed in the unhealthy organs or tissues. In the present state of knowledge the imaginary individual would probably not be disposed to spend a long time in the treatment of disease by electricity. To come to the practical point, we may say that Erb's work fulfils to a great extent the conditions which have been laid down. Too much space is spent, we think, on the therapeutical application of electricity. The opinions, however, as to the benefit to be derived in cases of disease of the various organs are pretty much those which we should have expressed, and so our criticism loses its keen edge.

The translation is fairly well done. The book is readable, but errors of expression are to be met with, and the matter has not completely lost the outlines of its German body. Thirty-nine woodcuts are of value in illustrating the text. We can decidedly recommend the book as giving an intelligible account of the subject.

Vorlesungen über Pharmakologie. Von Dr. C. BINZ. 1 Abtheilung. Berlin: Hirschwald. 1884.

THESE lectures on Pharmacology are to appear in three parts, of which the present is the first instalment. The second is promised towards the end of the current year, the third in 1885. We must content ourselves with briefly indicating the nature of the contents of this first volume. A brief introductory chapter explains the relationship of pharmacology to the healing art generally. It is the oldest part of the art; Dioscorides was the first compiler to use the term "materia medica," or rather its Greek equivalent. The next chapters are devoted to the consideration of the group of anæsthetics. Opium and its alkaloids, cannabis indica, chloral hydrate, bromide of potassium, conium, curare, lobelia, veratrin, amyl-nitrite, iodine, iodoform, iodides, atropin, hyoscyamin, and caffeine are the principal drugs treated of. The work is one of considerable erudition, given in the form of lectures. We may give a free translation of a passage on cannabis indica such as will serve the purpose of illustrating the style of the text: "Indian hemp and its preparations play a great part in the lives of Oriental races. Its remarkable intoxicating and soporific effects have long been known, and have formed the subject of many tales wherein truth and fiction confusedly mingle. It may be enjoyed in the form of the exuded resin (churrus), the thick extract mixed with sugar, an electuary with aromatics, or as pastilles made with tragacanth. It is both eaten and smoked. Hashish is the most generally used preparation, and by means of it the Oriental experiences all the reputed joys of paradise, and the stolid German is transported into the realms of boundless hallucination and dreamland. Schroff thus describes his own personal experience: 'About 10 o'clock P.M. I took seven centigrammes of dry hashish and went to bed smoking a cigar, as is my wont, and lay reading till 11 P.M., at which time I turned about with a view to sleep, thinking that the dose was probably too small, as nothing had happened and my pulse was natural. At the same instant I experienced a loud noise not only in my ears but all over my head; it was very like the sound of boiling water; at the same time a brilliant illumination appeared before me, which seemed to penetrate my whole body and render it transparent, &c.'"

Plant Analysis: Qualitative and Quantitative. By G. DRAGENDORFF, Ph.D., Professor of Pharmacy in the University of Dorpat, Russia. Translated from the German by Henry G. GREENISH, F.I.C. London: Baillière, Tindall, and Cox. 1884.

MR. GREENISH, formerly a pupil in Prof. Dragendorff's laboratory, a good chemist and a thorough German scholar, has given us an excellent translation of a work which is useful to all interested in chemistry, and valuable to many. Professor Dragendorff has done so much for systematic organic analysis, particularly in his well-known and admirable scheme for the separation of alkaloids, that no chemist was surprised at finding in his last work, the "Pflanzenanalyse," now rendered into English, a lucid and original text-book, easy to work by, and full of the author's special learning. After a short introduction, in which preliminary operations, such as the estimation of water, gas, &c., are described, about one-third of the book is devoted to a general system, founded on the successive use of different solvents for the separation of the chief proximate constituents of plants. The first solvent used is petroleum spirit, which should not boil above 45° C., and which is improved by rectification from lard, which diminishes its odour. Petroleum spirit removes ethereal and fixed oils, wax, chlorophyll, &c. Ether is used next to remove resin and allied bodies. This is followed by absolute alcohol, for tannins, glucosides, alkaloids, &c.; by water, for carbohydrates, albuminous bodies, &c.; by dilute soda and by dilute hydrochloric acid. Of course, the use of these solvents must be varied in special cases, and many additional methods are required for the identification of the substances present, but the general system follows the above order.

The rest of the book is occupied with an account of special methods and supplementary notes. As might have been expected, there is an excellent account of the alkaloids and their separation, but even more valuable, because more novel, are the directions for the discrimination of resins, bitter principles, tannins, and such-like ill-defined and often uncrystallisable bodies. Chemistry has still much to do in the study and classification of these bodies, and it is satis-

factory to note that a good many observers are studying them. The author's history of the carbohydrates is less satisfactory than most other parts of the book, and the important labours of O'Sullivan, Brown, and Heron do not receive sufficient notice; but the book on the whole is so valuable and the subject one which has received so little systematic treatment, that we are little inclined to cavil at omissions which are, perhaps, occasioned mainly by the limit of space.

Highly commendable features in the book are an excellent systematic table of contents, a full index, and clear, sensible illustrations, one of them a useful diagram of absorption spectra.

OUR LIBRARY TABLE.

A Manual of the Operations of Surgery, for the Use of Senior Students, House-Surgeons, and Junior Practitioners. Illustrated. By JOSEPH BELL, F.R.C.S. Edin., Lecturer on Clinical Surgery, and Surgeon to the Royal Infirmary, Edinburgh, &c. Fifth Edition, Revised and Enlarged. London: Simpkin, Marshall, and Co. 1883.—The fact that this little work has reached its fifth edition testifies to the appreciation in which it is held. The directions for the operations are concise, clear, and eminently practical. It is a great advantage to the student that Mr. Bell contents himself with describing that mode of operating in any given case which he has himself found to be best, and does not describe in equal detail all proposed alternate plans. We are surprised to find that the operations of nephrotomy, nephrectomy, and nephro-lithotomy are not described in this new edition of the book; and the details of the mode of performing gastrostomy are unsatisfactorily sparse. But whatever may have been omitted, all that the book contains is good and trustworthy.

Studies from the Biological Laboratory of the Johns Hopkins University, Baltimore. Edited by H. NEWELL MARTIN and W. K. BROOKS. Vol. II. No. 4. Published by N. Murray, Johns Hopkins University. 1883.—This number of the "Studies" contains:—1. Notes on the Development of Panopæus Sayi, by E. A. Birge, Professor of Zoo'ogy in the University of Wisconsin, with four plates. This is a crab very common in the neighbourhood of Crisfield, Md., but it was found impossible to raise any one specimen from the egg to the adult stage. They could be raised to the second Zoëa stage but not beyond. 2. The Nervous System of Porpita, by H. W. Conn and H. G. Beyer, with one plate. The authors show the presence of ganglion cells and sensory organs. 3. On the Presence of Ciliated Epithelium in the Human Kidney, by Albert H. Tuttle, Professor of Zoology in the Ohio State University. 4. On the Effect of Variations of Arterial Pressure on the Duration of the Systole and Diastole of the Heart-beat, by Wm. H. Howell and J. S. Ely. 5. Notes on the Medusæ of Beaufort, N.C., by W. K. Brooks, Associate Professor of Biology, Johns Hopkins University. The species described are Turritopsis Nutricula, Cunina Octonaria (which is a parasite in the bell of Turritopsis), Nemopsis Bachei, Phortis Gibbosa, Amphinema Apicatum, and Liriope Scutigera. 6. The Action of Ethyl Alcohol upon the Dog's Heart, by H. Newell Martin and Lewis T. Stevens. 7. The Direct Influence of Gradual Variations of Temperature upon the rate of Beat of the Dog's Heart, by H. Newell Martin.

Archiv für Anatomie und Physiologie (HIS, BRAUNE, und DU BOIS-REYMOND). Anatomische Abtheilung, Hefte i. und ii. Physiologische Abtheilung, Hefte i. und ii. 1884.—The anatomical division of His' Archive contains: 1. A long memoir by C. Kupffer on gastrulation in meroblastic ova of vertebrates, and the significance of the primitive streak. 2. A memoir by H. Strahl on the development of the cephalic end of lacerta agilis. 3. A paper by Graf Ferd. Spee on the direct participation of the ectoderm in the formation of the rudiment of the primary kidney in the guinea-pig. 4. A memoir by Dr. Richard Zander on the earliest stages of the development of the nails. The part is illustrated by six plates. The physiological division contains, amongst others, the following memoirs: 1. Du Bois-Reymond on secondary electro-motor phenomena in muscles, nerves, and electric organs. 2. Gustav Fritsch's report on a visit to England and Holland made with the object of inspecting the specimens of torpedines contained in the museums of those countries. 3. S. Danillo on the question whether the cortex of the posterior part of the cerebrum may be the seat of origin of epileptic attacks. 4. N. W. Jastreboff on the contraction of the vagina in the rabbit. E. Budde on metakinetic apparent movements, and on the perception of motion.

An Epitome of Hygiene. By S. AROKEUM PILLAY. Bangalore, 1883. — This little work, which is principally intended to serve as a handbook for the general use of the Karenese population, is the first of the kind ever published in the Karenese language on this subject, thus keeping in view the expressed desire of the Indian Government that the masses must be reached through the medium of their own language. The subjects selected for special explanation are the atmosphere, water, food, bathing, exercise, sleep, houses, &c. The fact that the first edition has already been exhausted is an encouraging one, and leads us to hope that in the near future every native in India will be acquainted with the elementary principles of the laws of health, and be induced to co-operate with the Government in its efforts to promote sanitation and public hygiene.

Illustrated Medicine and Surgery. Edited by GEORGE HENRY FOX and FREDERIC R. STURGIS. Vol. II., No. 4. New York: E. B. Treat.—This number contains illustrations and descriptions of herpes facialis, removal of a large capillary nævus, hypospadias, deformity of the hand, mucous patches of os uteri and vagina, venereal warts, fracture of the spine, downward displacement of the transverse colon, and syphilitic dactyllitis. The lithographs and woodcuts are fairly good. We are surprised to read that a downward displacement of the transverse colon is "of rare occurrence," certainly in this country it is not unfrequently seen.

A Guide to the Microscopical Examination of Drinking-water, with an Appendix on the Microscopical Examination of Air. By J. D. MACDONALD, M.D., R.N., F.R.S., Inspector-General of Hospitals and Fleets, ex-Professor of Naval Hygiene, Army Medical School. With 25 Lithographic Plates. Second Edition. London: J. and A. Churchill.—The second edition of Dr. Macdonald's useful little book is a decided improvement on, though not very different from, the first. A few alterations in arrangement have been made, and a slight expansion of the text and a useful section on the examination of the air has been added. The chief faults are those of the first edition, that there is no list of the plates and no account of the powers to be used or the magnitude of the objects figured. The last omission is a serious one for beginners.

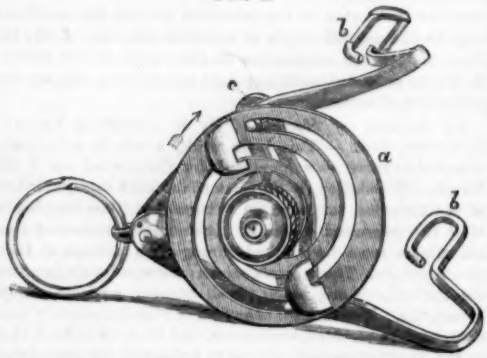
New Inventions.

A NEW GAG AND TONGUE DEPRESSOR.

MR. B. CAMPBELL GOWAN of Guy's Hospital has submitted to us two instruments which he has designed for use in operations about the mouth, which appear to have considerable advantages over those now in use. Fig. 1 represents the "gag." This consists of two simple curved blades pinned together at one end, and bent into an incomplete D-loop at the other. Near its centre, each of these blades is

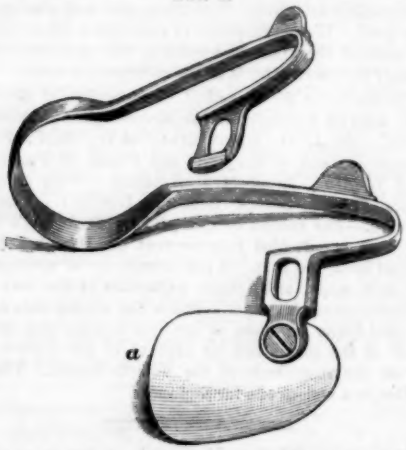
transfixed by a pin which travels in a slot in the disc (*a*) in front, and in another in the back-plate (*c*) behind. The blades are spread apart by means of the two curved ("Archimedian spiral") slots in the disc (*a*), which, in their relation to the pins, act as low-pitched inclined planes. Thus, by causing the disc to revolve in the direction of the arrow, a strong centrifugal force is applied to the pins, and the blades are forced apart. Reversing this process causes the blades to approximate. The back-plate (*c*) carries the axis of the

FIG. 1.



disc, and by its slots maintains its central position. The tooth-plate (*b*), besides taking a firm grip of the molars or of the gums (in edentulous jaws) is capable of adapting itself to their changes of plane. In use this is, of course, protected by a piece of rubber-tubing. By releasing the milled screw in the centre of the disc the instrument comes to pieces, and can be thoroughly cleansed. It has been thoroughly tested at Guy's, and has been found to work admirably. Fig. 2 represents a spring "tongue depressor," which is intended for

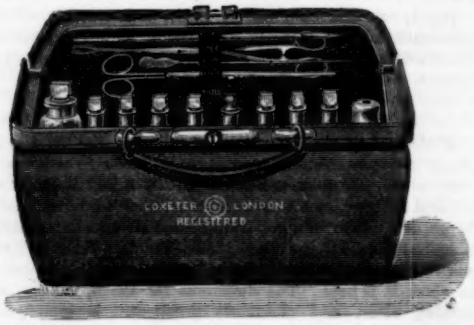
FIG. 2.



use with the above in the operation for cleft palate. It consists of a simple spring gag, the inferior tooth-plate of which is provided with a tongue-plate (*a*). In use its jaws are sprung together between the index-finger and thumb. It is then adjusted to the molars on the opposite side to the gag. Should the patient, as is frequently the case, be in danger of choking from hæmorrhage, the instrument can be removed in an instant, the tongue seized, and the fauces sponged out, the gag keeping the mouth open the while. These instruments are made in several sizes by A. Konst, Richmond-street, St. Luke's.

THE OBSTETRIC VADE-MECUM.

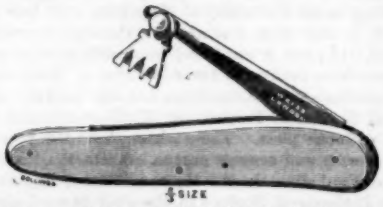
THIS bag has been made with a view of furnishing the practitioner, in a form in which they can readily be carried about, with all the requisites for the management of cases of labour and abortion, except those in which destructive operations on the child or the Cæsarean section are called for. It therefore does not include the perforator, crotchet, cephalotribe, and their associates, but it includes the forceps



and all the means necessary for the arrest of hæmorrhage, for transfusion of saline fluids, for induction of premature labour, restoration of the stillborn child, &c. These have been well chosen and excellently arranged within a small space, and the bag cannot but prove of the greatest use and convenience to the general practitioner and those practising midwifery. The vade-mecum has been made by Messrs. Coxeter and Sons at the suggestion of Dr. Charles Read.

SAFETY CORN-CUTTER.

MESSRS. WEISS AND SON of the Strand have submitted to us a little instrument devised for the purpose of removing the surface of corns and callosities of the skin without risk of wounding the subcutaneous tissue. As will be seen by the woodcut, the triangular blade of the instrument is



guarded by a shield somewhat after the fashion of a guard razor, and may be employed by even a careless person with little or no danger. The shield is fixed by a screw, and may readily be removed.

EYE-DROP BOTTLE.

A BOTTLE has been devised by Dr. Macnaughton Jones as an aid to the use of eserine (so prone to decomposition), duboisine, pilocarpine, gelsemine, and atropine or nitrate of silver by preventing the entrance of dust or the rapid generation of fungi, and arresting the action of light on the alkaloid. The bottles are made in two colours, blue and yellow, with the view of enabling the surgeon or patient to distinguish at a glance, and without label, the nature of the contained solution. The stopper is of rubber and vulcanite, and fits the neck accurately and tightly. This stopper is covered by an air-tight cap. The bottle is light and inexpensive, and will, no doubt, be useful to ophthalmic surgeons. By use of this contrivance all waste of the solutions is obviated, the drop being expelled by simply holding the bottle in the hand and inverting it.

THE LANCET.

LONDON: SATURDAY, APRIL 19, 1884.

THE "grey metropolis of the North" has this week been celebrating the 300th return of her University's birthday, and the event has attracted to her the interest of the whole civilised world. Extraordinary preparations for it had long been on foot, and in the magnificence of its success the celebration has reaped the reward of the forethought, the liberality, and the organising power of its promoters. Scotland, indeed, would have shown herself insensible to one of the greatest facts in her history had she failed to commemorate, with the genial solemnity befitting it, the anniversary of the founding of her youngest and fairest seat of learning. If in her strongly marked national character there is one feature more prominent than another, it is her high appreciation—nay, her passionate love—of the liberal arts. With all her leaning to the practical, her so-called worship of the "knowledge that pays," she has rarely, if ever, been untrue to "knowledge for its own sake," and, if proof of this were wanted, it would be found in the prominence she has always given in her universities to abstract philosophy, to that kind of knowledge which, however lofty in its pretensions, is generally eschewed, as till lately in England, by nations who like to call themselves practical. With all their resources, surpassing those of Edinburgh, as the population of England outnumbers that of Scotland, Oxford and Cambridge have not made one-tenth part of the contributions vouchsafed by Edinburgh alone to rational philosophy, in system, and in teaching; and this when Edinburgh was drawing on herself to meet the demands of the three great liberal professions, particularly that of medicine.

It is in Edinburgh that the Scottish ideal of education is seen in its highest development, far short of the ideal as that development is. Her University is the youngest of the four which represent the academic system of Scotland, but it is, probably on that account, by far the most completely organised. The breath of her true *genius loci*, the spirit of JOHN KNOX, is felt through every fibre of her frame. That mighty reformer, not in the religious sense alone, grasped the *præfervidum ingenium* of his countrymen in its totality, and his parish-school system, imperfectly as it was realised, was calculated to prepare for the higher teaching of the universities a perennial contingent of aspirants. Scottish literary and scientific annals teem with evidence of the blessings that system conferred on all ranks of the people at a time when her neighbours had nothing similar to show. The professions were thus recruited from social strata which in other countries were content to follow the menial occupations of the *petite bourgeoisie*, and new and vigorous blood thus constantly welled up from sources which elsewhere were practically dry. In the profession, which more than all others is universal in its application, scarcely affected by tradition or locality, this outlet for the nation's talent was peculiarly appreciated. Medicine, unconditioned like laws or theology by national characteristics, and open to the practitioner in whatever clime he chose to settle, became the favourite of the young ambitious Scot, and Edinburgh, with her University providing amply for all cognate studies, supplied the best conditions attainable for proficiency in the art. And so her medical school, reinforced by the return of old pupils, often in the capacity of professors, to her halls, waxed apace until now it ranks second to none in the educated world. Not that it comes up to the ideal devised for it by KNOX, who would never have approved the too scanty preliminary training with which the young aspirant to the medical career embarks on professional study. The faculty of arts, comprising literature in its classical sense, with mathematics and philosophy, was, in KNOX'S view, as in BACON'S, to be the "main and common way before the professions do part and divide themselves,"—the way, to wit, which the medical aspirant, equally with his compeer in theology or law, was to traverse before concentrating his energies on his special department. It would lead us too far afield to trace the causes by which the medical training of Edinburgh, as indeed of all other medical schools on a similar scale, fell off from this ideal, till at one time her graduates left her halls with scarce Latin enough to construe their diplomas. The evil has been recognised; efforts have not been wanting to remedy it; and it will be the special pride of Edinburgh, in this as in other professional callings, to lead the way to a higher and more worthily academic standard of preliminary or general culture.

Other defects may yet be revealed in her system from the sheer numbers she attracts to her school. The professorial organisation she so brilliantly represents may be impaired by the very popularity it has earned; and from the absolute impossibility of bestowing individual attention on his young hearers the professor may one day have to be reinforced, if not replaced, by the tutor. Here we are again on the threshold of a keenly controverted subject. But without entering on it, we may rest assured that whichever system, professorial or tutorial, wins the day, Edinburgh, with the adaptability she has shown to contingent wants, will not fail to profit by the lessons borne in upon her from without, and to continue to perfect her organisation so as still to meet the demands of ever-shifting circumstances, and to maintain in future generations the proud position she has held in the past. Born in an hour of reaction from the weariness of civil discord—open, by reason of her very youth, as compared with her other sisters, to the full flood of Renaissance ideas,—shaping herself to the demands of an age ripe for reformation and of a people burning to throw off the thraldom of tradition, she commenced three centuries ago the career which she has pursued with good augury ever since. Her very situation, a provincial one, has compensating advantages. If great cities like London and Paris, by the pressure of metropolitan life, tempt the student with distractions inconducive to the concentration which undergraduate study requires, Edinburgh, like the poet's garden, "not wholly in the busy world, nor quite beyond it," presents no such obstacles to her academic youth, but lures them away, if at all, to scenes of natural beauty, equally salutary for the "spirit's health" as for the body's. Her romantic annals, harmonising with her romantic site and surroundings, are themselves an inspiration to the

generous student, teaching him the lesson that history is not made up, as the rhetorical trope has it, "of the lives of great men," but of the mass of public thought and sentiment, of which the so-called "great man" is but the mouth-piece. To widen and deepen this thought, to refine and ennoble this sentiment, such is the humanising work of universities like that of Edinburgh, and it is in acknowledgment that, on the whole, she has played her part well, and will continue to play it more efficiently, that her academic halls have just been thronged with men of "light and leading" from every sister seat of learning in the Old World and in the New.

THOSE who think that only publicity is needed to render the prosecution of an inquiry as to the sanity or insanity of a person alleged to be "of unsound mind" all that it ought to be, can judge how far this vaunted safeguard is likely to be successful and sufficient by the character and issue of the proceedings against Mr. GILBERT SCOTT. A large jury of laymen being empanelled, a judge taking the matter in his own hands as a simple question of law and common sense, exceedingly short work has been made of the argument that eccentricity, excitability, and a surrender of self-control do not necessarily constitute insanity. This result must have been anticipated the moment the judge began to speak of medical witnesses as possibly trustworthy guides in questions of fact, and to argue that doctors were only men of common sense, and the jury were equally men of common sense, and further to express his own opinion that ability to transact business was no evidence of sanity. The inquiry was foreclosed, and the issue no longer uncertain, the moment it was ruled that, "though it was almost impossible for a layman to say why he thought or did not think a particular person of unsound mind, the opinion of laymen on such questions was often a matter of complete certainty." This settled the case immediately. The medical evidence was cast aside, and the jury were invited to form their own opinion. A medical witness *might* be a trustworthy guide, but a layman's opinion was often a complete certainty, so that the evidence of laymen was to be preferred to that of doctors. This is what the dictum of the judge in this remarkable case came to.

It is not worth while to criticise Mr. Justice DENMAN'S detailed opinions. We have no wish to do so. Suffice it to say that the whole conduct of the case was unsatisfactory in point of scientific accuracy, whatever it may have been in legal method and consistency. Morals, mental integrity, self-control, passion, and habits were jumbled together in a confusion that baffles description. In so far as any principle can be deduced from the issue of this "inquiry," viewed in the light of the summing up by the judge, an excess of erotic or any other passion getting the better of a man's judgment does not make him a criminal, or even an offender against the moral law, but a lunatic. We trust this will be borne in mind when next some poor wretch with strongly developed passions and a brutal nature commits an outrage which Justice is called upon to avenge. Let it be then remembered that overwork, drink, and erotic passions are to be classed together as recognised producers of insanity. We have not a word to say against this doctrine, only if one judge preaches it, others should accept it as true; and a gospel of release it would certainly have proved, had it only been promulgated by the Bench a little earlier, to many a malefactor who, being less mercifully judged, has expiated crime the fruit of erotic passion and drink by falling a victim to the law's most dread penalty. Consistency is the first condition of an equitable administration of the law; and though justice, like everything else, may be progressive, it must be understood that the new dispensation inaugurated by Mr. Justice DENMAN is one that cannot be set aside when the issue to be decided is one more weighty than that of simply depriving a man of his liberty, grave as that issue, rightly judged, must always be.

We are not prepared to express an opinion as to the fact or fallacy of mental unsoundness credited to Mr. SCOTT. All we have to say is, that nothing which came out in evidence was sufficient either in science or common sense to justify the finding of the jury. It may be that the verdict is a good and true one; but if it is, that must be purely accidental. The whole story as reported in the evidence of Mr. SCOTT'S life is consistent with the hypothesis that he is at this moment perfectly sane. There is indeed very little, if anything, to show that he has ever been otherwise. If the lives and conduct of one-half of the total number of sane, but impulsive, excitable, and erotic persons in society were to be detailed in a court of justice, they might be judged insane. Give a dog a bad name, and you may hang him as soon as you please. Call a man insane, let him know that you think him so, look at him and treat him as if you did, and it will not be long before plenty of "evidence" is forthcoming to back up the allegation. As to "suspicions," or apprehensions of "conspiracy," no medical practitioner who has been so placed as to see and hear something of the daily lives of his patients, and to be the depository of their confidences, can have any difficulty in recalling instances of both of these worrying impressions or persuasions in cases where neither the most eager expert nor the most judicially minded layman could for a moment entertain the presumption of insanity. It is no uncommon experience to find weakly but over-excited and over-stimulated patients harassed with fears of being wronged and even poisoned. The peevishness of a delirious or fevered brain is exceedingly apt to take this form of mind-trouble, and what a man or woman may say or do when once this thought gets into the head neither science nor common sense can enable anyone to prognosticate. Under the combined influence of passion and drink men will do far more outrageous acts than the most startling with which Mr. SCOTT has been charged, and yet be perfectly sane.

For ourselves, we regard this trial or inquiry as a conspicuous failure, and its issue as a regrettable miscarriage of justice. Its chief interest, however, from our point of view, arises out of the proof it affords that mere publicity will not add in any way to the safety of the sane in the presence of an allegation of insanity. On the contrary, if inquiries generally were to be conducted as this has been, the peril would, in our opinion, be greatly increased. Until the Legislature has time to revise the whole question of Lunacy Law in relation to the protection of the sane, it will be common prudence to leave the conduct of "commissions" in the hands of Masters in Lunacy, who *do* know what they have to ascertain, and, for the most part, take a sensible way of arriving at a fairly satisfactory conclusion. So much

cannot by any stretch of courtesy be said of proceedings such as those in the matter of GEORGE GILBERT SCOTT.

DURING the last few years, so far as we are aware, no very important researches have been undertaken to determine the relative rapidity with which the various sensations of vision, hearing, and touch are transmitted. The last number of ROBIN'S *Journal de l'Anatomie et de la Physiologie*, however, contains a memoir by M. BLOCH in which he gives the results of his experiments on this subject, and these do not appear to be in perfect accord with those of his predecessors. He commences his paper by pointing out the importance of rigorously defining the meaning of every physiological term, if error is to be avoided, and a comparison made between the work of different investigators. Thus, taking a single example, that of vision, we must distinguish in the first place the biological process, which consists in the passage of the ray of light through the transparent media and the excitation of the retina. The next process is the transmission, by the optic nerve to the corpora quadrigemina, of the impression made upon the retina. The effect produced upon these centres is termed a sensation, and if the stimulus applied to the retina have been very transient, the sensorial process may stop here. A sensation of light may alone be felt, without any distinct recognition of the object from which it proceeds. But the impression may pass beyond the corpora quadrigemina and reach the visual centre; the process of perception is then complete and our cognition is perfect; we see the luminous object, and we have a distinct conception of it.

M. BLOCH'S researches have had for their precise object the determination of the time occupied in sensorial transmission—that is to say, the time which elapses between the moment when the stimulus acts physically and that at which it is perceived. He has sought to ascertain the relative time required to see, to hear, and to perceive the contact of a body with the skin. The instruments he employed were those in ordinary use for similar purposes in a physiological laboratory—a revolving cylinder, tambours, and tuning-fork,—and he soon arrived at the conclusion that the relative rapidity of sensorial transmissions cannot be studied by that method which consists in a voluntary response to a stimulus applied to the sensory organ, for this process involves, in addition to the factors above mentioned, the transformation of a perception into volition, the transmission of a motor impulse through a motor nerve, the inertia of the muscle, and finally the time lost by the instrument, all of which are difficult to determine. The method he adopted consisted in making use of the apparent simultaneity of sensations of sight and hearing, or of sight and touch, or of touch and hearing, and determining the limits within which this simultaneity appears to exist. Thus a short, single, well-defined sound was made, by attaching to the drum a pin with wax, which was struck by a lever of steel each time the cylinder rotated. This stimulus was fixed in point of time, and invariable. At the same moment that the sound was produced, or just before or just after it, the finger of one hand was touched with the tip of a piece of whalebone, also rotating with the cylinder. Now, it was found that when the sound occurred before the contact of the lever with the finger, no error was ever made. The subject invariably heard before he felt. When the two were synchronous, the same result was observed—nay, even when the tactile stimulus was applied before the auditory, the latter was still first perceived, and this even when the former was 6-250ths of a second before the latter. The interpretation of the periods of time included between the limits of supposed simultaneity of impression rests on the combined action of the time of transmission and the duration of persistence of the sensations. In studying the duration of the sensations experimented on in any given case, it is possible to determine the fraction of a second which measures the period sought for—that is to say, a comparison can be made between sensorial transmissions. M. BLOCH proposes to apply the term "limit of appreciation" to the sensorial error that may be avoided either by comparing two sensations of the same order, or by comparing two different sensations in relation to the moment of physical excitation. The well known term, personal equation, he reserves for the error of appreciation, which has wide limits, and which results from the cycle commencing with the application of a stimulus and terminating by a voluntary movement. From a consideration of all his experiments he finds that, of the three sensations he has studied, vision is the most rapid. To this succeeds audition, the transmission of which lasts 1-72nd of a second longer than visual transmission; lastly, touch, which in the case of the hand lasts 1-21st of a second longer than visual transmission.

THAT indefatigable worker, Dr. VANDYKE CARTER, has recently compiled, for the information of the Government of British India, a third memoir on the prevention of leprosy by segregation of the affected, based on the series of reports and statistical tables of the Civil Medical Service in Norway, brought down to 1880 inclusive. This valuable information, thus made more accessible, cannot fail to excite much attention outside India, in Demerara, and in other places where the question is at the present time a burning one. It is well known that for the last twenty-five years an attempt has been made in Norway to exterminate leprosy by preventing the continuous reproduction of the disease, and this has been carried out by inducing lepers to reside in one of five asylums capable of lodging altogether 800 sick, and further by the isolation, as far as possible, of home-dwellers. Compulsory powers to segregate do not exist at present, though it is in contemplation to seek for them, especially as regards home-dwellers. The number of inmates of these asylums has ranged between 235 in 1856 and 759 in 1866 to 617 in 1880, the decrease arising apparently from the increasing unwillingness of the peasantry to immure themselves. The number of home-dwellers has decreased from about 80 per cent. of the total lepers known in 1860 to about 70 per cent. in 1870, and about 61 per cent. in 1880. The results show, even under this partial restriction, a decided though moderate and gradual diminution of leprosy throughout the period. This decline, which is established in various ways beyond doubt, cannot be estimated with precision, however, owing to the absence of an exact registration, which to be perfect should include with the enumeration of lepers a due record of their history and movements. Such an enumeration is not complete from various causes, such as the insidious and often un-

recognised evolution of the disease and the evasion of registration. Dr. CARTER, after a careful examination of the records from several points of view, estimates the decline as about 1000, or about a third of the total known in 1856. The cases of strictly recent origin, both relatively to the total new additions, which include also the hitherto undetected cases, and absolutely, are becoming smaller by degrees, and, Dr. CARTER says, indubitably less. This diminution is certainly not due to any purely medical treatment, and, following HANSEN, he argues against such a reduction by any natural dying out of the malady, and further against the decline being attributable to the operation of dietetic, hygienic, or climatic influences. It is necessary, therefore, to fall back on the supposition that the predominant influence at work is the segregation of lepers. HANSEN has shown by elaborate statistics that there is continually taking place a certain reproduction of the disease, and that the proportionate growth of leprosy is by no means diminishing, whilst in the great majority of affected districts the death-rate of lepers lies below their increase rate. But the total number of lepers is certainly lessening, and the yearly increment of new cases in a district regularly declines in direct proportion to the larger number of lepers removed to the asylums. The fact is, the affected districts are becoming emptied of their sick, not by excess of deaths, but by abstraction and isolation in asylums and in the homes of the affected. HANSEN, as is well known, is a strenuous advocate of the contagiousness of leprosy, and shows in his reports that where the severe nodular phases are commonest there arises the largest proportion of new cases. In a third part of the memoir Dr. CARTER advocates anew the adoption of segregation for India, and discusses the preventive measures suitable for that country; and in an appendix adds a note on the pathology of leprosy, illustrated by two figures of the Bacillus lepræ and tuberculosis respectively, as he has observed them in India.

Annotations.

"Ne quid nimis."

THE FELLOWS AND MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

IF the Council of the Royal College of Surgeons of England was at any time disposed to discount the significance of the recent meeting of Fellows and Members, it must by this time be aware that an opinion in favour of extensive reform is rapidly spreading. Even the most complacent member of the Council must open both his eyes and ears to such appeals as those made by Mr. Charles Hawkins and Mr. George Pollock. Both these gentlemen are peculiarly qualified to speak on the matters under discussion, and it is to be regretted that they preserved an unbroken silence at the recent meeting. A few well-timed and judicious remarks would not only have been profitable in themselves, but might have directed the discussion into better paths. It would seem almost impossible to prepare any comprehensive scheme of reform except by the means we have frequently urged upon the Council, and which Mr. Pollock approves—namely, that the Council should solicit the opinions of some of the leading Fellows and Members as to any alterations that may seem desirable to strengthen the position and promote the welfare of the College.

THE GOVERNMENT AND INTERNATIONAL CONGRESSES.

IN his presidential address to the Royal College of Physicians, Sir William Jenner informed the Fellows that a communication had been received by the College from the Foreign Office offering to address letters of introduction to the representatives of the British Government for any Fellows whom the College might appoint as delegates to the International Congress at the Hague and Copenhagen, but adding distinctly that Her Majesty's Government could not undertake to pay any portion of the expenses of the delegates. The College of Physicians have, we are glad to say, declined to be a party to a course which is obviously opposed to the interests of the profession; and they have informed the Foreign Office that under the conditions specified the College declines to accept their offer for any delegates whom they may send. So also at a recent meeting of the Epidemiological Society, Dr. Norman Chevers, the president, asked the approval of the members to a similar refusal, which the Council recommended should be sent to the advances of the Foreign Office, and that approval was at once given unanimously. In short, our Government having been requested by the Governments of the countries in which the congresses are to be held to send delegates as their representatives, are turning hither and thither to the various medical bodies in order that they may be able to comply with the request without incurring any expense, a method of procedure which we believe no other Government has ever resorted to. We trust that in this matter other medical bodies will follow the example set by the College of Physicians and the Epidemiological Society. If our Government desires to be represented at the International Congresses, it should act as other Governments do—namely, nominate and pay the expenses of its delegates.

THE INFECTIOUS HOSPITAL QUESTION IN SUNDERLAND.

THE Corporation of Sunderland have been publicly rebuked by their own constituents for their long-continued failure adequately to meet the requirements of the borough in the matter of the isolation of infectious diseases. It is now some thirteen years since Sunderland found itself all but helpless in the face of an epidemic of small-pox, and in the emergency they took an old house standing in its own grounds in Dunning-street, a crowded and poor part of the borough, as a small-pox hospital. The arrangement was stated to be only a temporary one, but, like nearly all such temporary schemes, it has continued for many years. From time to time the corporation have received warnings that such hospital provision as they had made was utterly inadequate to the wants of the borough. The medical profession and the corporation officers have told them that they could not safely isolate two different infectious fevers there at the same time, and the public have had so little confidence in the arrangement, that when isolation has been most wanted the patients or their friends have refused to submit to removal to the only building that was available. In one sense, it is true, a wooden building at the workhouse could also be used, and it has on several occasions been necessary to urge people into this building notwithstanding the fact that they thereby became paupers, whether they repaid the cost of their maintenance and treatment or not. Still things went on just as they always had done. But the existence both of typhus and of small-pox in the borough has recently again brought the subject to the front. Respectable people have protested against being made paupers for the sake of the public health, and the Dunning-street Hospital being more than full, they have refused to leave their homes when urged to do so by the officers of the sanitary authority. Others have complained of the treatment they

have received whilst under treatment in the pauper institution, and the governors of the General Infirmary being unable to rid themselves of cases of infectious disease breaking out amongst their patients, have joined in urging the Town Council no longer to delay the performance of their statutory duty in providing proper hospital accommodation. The general body of ratepayers also called upon the mayor to convene a public meeting on the subject, which meeting was held on the 9th instant. From the speeches delivered there appears to have been complete unanimity in the demand that Sunderland should be provided with a proper hospital; the only doubt being as to the method by which this might best be effected. So far as the Dunning-street Hospital is concerned, no countenance should be given to its continued existence, whether it be reconstructed or not. Not only are the buildings unfit for the purposes to which they have so long been put, but the site is an improper one. At least one speaker advocated temporary buildings of wood or iron; and he brought forward military experience as to their suitability for the purpose. But it must be remembered that Sunderland will not have to do with soldiers during a military campaign, but with the wives and daughters of respectable townspeople who have been accustomed to live in dwellings having substantial brick or stone walls, and who will therefore not be likely to assent, during the depth of an English winter and whilst suffering from fever, to removal to wooden huts. What is needed in Sunderland is a fairly isolated site of some six acres in extent, with separate pavilions containing common wards for the several infectious fevers, and at least one pavilion, much after the style of that which has recently been commenced at the London Fever Hospital, and in which persons desirous of paying for privacy can have separate accommodation without running the risk of contracting another disease than that for which they sought isolation. The size of Sunderland hardly calls for two separate hospitals, unless, indeed, it be desired to make an entirely separate institution for small-pox, as distinguished from the other infectious fevers. Although there are certain advantages in multiple hospitals, the process of multiplication is an expensive one, and it only becomes really necessary either with a view of preventing too large an aggregation of the infectious sick on any one site, or to obviate the necessity of too long a journey for the patients. If such a site as we have indicated were provided, and the hospital buildings were placed at a suitable distance from the boundary, no fear need be apprehended from any such aggregation of patients as would be likely to occur in a town where a reasonably attractive hospital would tend to secure the immediate isolation of the first persons attacked, and would thus go far to prevent the occurrence of any epidemic calling for a large number of beds for any one disease.

SANITARY CONDITION OF CLERKENWELL.

THE present sanitary disorganisation of the metropolis places almost insuperable difficulties in the way of obtaining trustworthy mortality statistics for the various sanitary districts into which London is divided. Sir Charles Dilke recently referred in the House of Commons to the overcrowding which he had found to exist in insanitary and dilapidated dwellings in Clerkenwell. As a rejoinder to this statement the local vestry instructed their clerk to forward to Sir Charles Dilke copies of the reports of their medical officer of health for the past six months. These reports are stated to show that the rate of mortality in Clerkenwell compared favourably with that in other parishes of the metropolis, and within the metropolitan area generally. Now, it is a fact that the parish of Clerkenwell, which forms one of the metropolitan sanitary districts, contains no public institution—no workhouse, and no hospital. Most of the sick poor from Clerkenwell, therefore, whether they die in workhouses or in hospitals, die outside the parish. We cannot say that we have seen the special reports, of which copies were sent to Sir Charles Dilke, but we have never seen a health report for Clerkenwell in which any serious attempt was made to bring into account the deaths of Clerkenwell residents who die outside the parish. It is needless to say that without such correction the mortality statistics of this parish are worse than useless, they are misleading. The mean recorded death-rate in Clerkenwell during the three years 1880–81–82 was, it is true, only 18·6 per 1000. Assuming, however, that Clerkenwell contributes its due share (according to population) of the workhouse deaths in the Holborn Union, which there is no reason to doubt, this would raise the death-rate of the parish to 22·0 per 1000. Moreover, on the assumption that Clerkenwell also contributes its due quota to the deaths in the metropolitan hospitals, another addition of 2·0 must be made to the death-rate, raising the corrected death-rate for the parish to 24·0 per 1000. Now, as the mean death-rate for the whole of London in the three years 1880–81–82 did not exceed 21·4 per 1000, the apparent anomaly of the co-existence of the overcrowding in insanitary dwellings observed by Sir Charles Dilke, with a remarkably low death-rate, is susceptible of explanation.

OBSTRUCTIVE VESTRYMEN.

ONE of the great boons likely to be gained by the community of the metropolis as a whole, when the generally admirable measure of reform propounded by Sir William Harcourt comes into force, will be the reconstitution of local authorities so that obstructives may be eliminated. The ratepayers will need to look to this matter very carefully; but they may, if they please, easily effect radical improvements under the new *régime*. It is intolerable that individual owners of bad property should be allowed to sit on vestries and by their votes and influence prevent those sweeping changes which public interests demand. There are too many deplorable instances of this obstruction in the districts of which the metropolis is compounded. When London proper has so extended its limits as to become coterminous with the metropolitan area, local government, generally and in detail, will, it may be hoped, be lifted out of a low and bad groove, and placed on a more respectable and desirable footing. Nothing should be allowed to stand in the way of this reform. Even that wondrously complex administrative organisation the Local Government Board should be compelled to stand aside or move on, and the Metropolitan Board of Works must perforce be coerced to order.

SELF-SALE.

A CURIOUS dispute between an eminent medical professor and the relatives of a deceased gentleman is now being carried on in Russia. It appears that the late lamented, some time prior to his death, finding himself in impecunious circumstances, entered into a compact with a medical man. The terms of the agreement were that the doctor, upon paying a certain sum of money to the friends of the defunct should obtain sole possession of the skull of the latter. The instrument was drawn up in legal form and duly attested. Fortune, however, subsequently smiled upon the quondam pauper; he became wealthy, and thus the necessity which prompted him to his singular bargain no longer existed. In process of time he was gathered to his fathers, whereupon the enthusiastic professor claimed his bond, and declined to accept monetary compensation on its being refused him. An appeal is to be made to the courts to settle

the question of ownership. Pending this, the corporeal remains of the silent party to the suit rest free from dismemberment. What the law may be upon the subject, as dispensed in autocratic Russia, we do not know. In England the susceptibilities of the living are not allowed to be sacrificed to the past vagaries of those who are dead. A man is free to set what price he likes upon the solution of the posthumous integrity of his frame, and reap what benefit he can from those who think well to foster his unnatural propensities, but there the unhallowed transaction ends. Sentiment and belief are happily still cherished by us as living principles, and safeguarded against deeds instigated by sordid motives.

THE WESTMINSTER UNION.

THE result of the election of guardians for the Westminster Union, including the parishes of St. Anne, Soho, and St. James, which took place in the early part of the present month, cannot fail to afford satisfaction to all those who, in the recent prolonged inquiry into the conduct of Mr. Bliss, the workhouse master, espoused the cause of, and approved the action taken by, the medical officer, Dr. Rogers. The thirteen members of the old board who supported Mr. Bliss against the charge of harshly treating the pauper inmates of the workhouse, and who procured the temporary suspension of Dr. Rogers, have all been rejected; while the five members who voted for the compulsory resignation of the workhouse master have been returned by a substantial majority, together with thirteen new members, who are pledged to remove all legitimate grievances, and to secure the humane and kindly treatment of the many aged and helpless inmates of the workhouse. Among the nominators of some of the new guardians were the Bishop of London, the Marquis of Waterford, the Marquis of Bristol, Earl Cowper, Sir Stafford Northcote, M.P., and Sir William Bowman. We congratulate Dr. Rogers on having procured from the ratepayers such a triumphant vindication of his conduct, and feel assured that the result of this election will greatly strengthen the position of Poor-law medical officers throughout the country. In view of the facts that the Local Government Board, in determining to refrain from adopting the extreme course of requiring the resignation of the master of the workhouse, were mainly influenced by the fact that he retained the confidence of the guardians, and that the guardians referred to have now ceased to be members of the board, it will be interesting to note what future action will be taken by the recently elected board of guardians.

THE "CEYLON."

THE Ocean Steam Yachting Company intend on or about the 24th of May to despatch their steam yacht, the *Ceylon*, on a three weeks' cruise to the Atlantic Islands, during which a four days' stay will be made at St. Michael's, Azores, where is situated a large bathing establishment, the property of the Portuguese Government, the use of which is free and unrestricted, and is said to be especially valuable in cases of cutaneous disease and ulcerated sores. A pamphlet issued by the above-named company represents one of these springs as cold, containing muriatic, sulphuric, and carbonic acids, with iron, alumina, and magnesia; strongly impregnated with carbonic acid, extremely agreeable to the palate, possessing strong digestive powers, and creating an almost immediate appetite. Another has a powerful acid quality; a third a sharp, saline, bitter flavour. Agua azeda comes out of the rock deliciously cool, though immediately adjoining it are hot ferruginous springs. The appearance of the water in some cases is limpid and transparent, in others turbid, of a white, blue, or reddish hue, depositing a red or blue clayey substance.

RICHMOND AND ITS REFUSE.

ACCORDING to accounts in the local papers, the Vestry of Richmond is permitting in its district an offence against health which merits the strongest condemnation. Tons of rotting vegetable and animal matter and ashes are alleged to be in course of deposit in a layer ten feet deep at the back of the Alexandra-road, in a locality where it will doubtless before long be built upon. The same sort of material is stated to have been deposited in Sandy-lane to a depth of two feet only, and when the road was reopened for the purpose of laying a drain the smell is described as having been of a sickening character. An effort to induce the vestry to stay its action in this matter appears to have failed, and now an appeal to the Local Government Board or to the Courts of Law is spoken of. If the facts are as stated it is to be hoped that the vestry will not await public inquiry, but will at once do that which is necessary in the sanitary interests of the district. The case of Goodacre *v.* Watson is not a precedent which the vestry can regard with satisfaction. In that case Mr. Justice Fry condemned in the strongest terms the deposit of any very similar material in places where building operations were in contemplation; adding that many a man had been found guilty of manslaughter for acts less morally criminal than those which the defendant was carrying out; and in granting a perpetual injunction against any further similar proceedings, he threatened imprisonment in case of disobedience. The stuff deposited may in that case have been, at least in part, more offensive than the filth and refuse which is accumulating in Richmond; but, according to Mr. Justice Fry, if it creates a nuisance, it would come within the terms of such an injunction as he granted. On the question of nuisance there does not seem to be a shadow of doubt.

THE DISMISSAL OF DR. BANKS.

WE learn from the papers that an unpleasant affair has occurred in Bombay, in which a medical officer has been concerned. Dr. Banks, Civil Surgeon at Ahmedabad, went out for a day's sport. While he was hunting at Sanand, his servant, whom he had sent out with his rifle, was attacked by some villagers, severely beaten, and robbed of the rifle. Dr. Banks immediately went to the village and searched some of the houses, under the roof of one of which he found the rifle concealed. Unfortunately, instead of bringing the case to the notice of the authorities, he took the law into his own hands, ordered his servants to give the villagers a thrashing, and made them pay twenty rupees to the man as compensation for the beating they had given him. So far as we can judge from the report in the papers, the case seems to have been inquired into by the magistrate of the district at the time and treated as a matter of little consequence. Sir James Ferguson, the Governor of Bombay, took, however, a different view of it, and made it the subject of "a long and verbose Government resolution," in which he censured the magistrate of the district and the Commissioner of the division, and dismissed Dr. Banks from his appointment. This decision has given much dissatisfaction to the Europeans in Bombay, who think that Dr. Banks has been treated very harshly. The course taken by Sir James Ferguson appears to have been very injudicious, and is much to be regretted. Admitting that Dr. Banks acted imprudently in taking the law into his own hands, he did so under great provocation, and the punishment inflicted on him appears to be greatly disproportioned to the offence. The Governor, in superseding the decision of the local magistrates, who had ample means of ascertaining all the facts of the case, has established a dangerous precedent, which, if followed, may be the means of engendering a feeling between Europeans and natives which may be productive of very unpleasant consequences. The accounts which

have reached us of the affair lead to the conclusion that the Governor has been unjust in his action, and that this cannot fail to produce a feeling of distrust in him on the part of the European population, an event very much to be regretted.

PENNY DINNERS FOR SCHOOL BOARD CHILDREN.

THE disadvantage of the vegetarian diet, as is well known, does not consist in its being innutritious, but in the combination of its necessary elements in such relatively unequal proportions that it must be taken in large bulk if it alone is to sustain strength. Especially is the comparative scantiness of nitrogenous matters to be taken into consideration. This drawback, which is felt by an active adult, is of less consequence in childhood, for two reasons: first, that muscular tissue, for the repair of which proteids are chiefly necessary, is not at that age taxed by very severe exertion; secondly, that the digestive forces are then approaching their most vigorous period, and, moreover, are employed mainly in building tissues formed of carbonaceous and phosphatic materials. The penny dinners for School Board children, lately instituted at Rousdon, Dorsetshire, and at Bristol, and now about to form a feature of London life, owe their *rationale* to the dietetic principles above-stated. They are largely composed of puddings and soup, and are well adapted to afford a good deal of nourishment in the form of wheaten food with occasionally a little meat. No doubt it would be desirable to have a small supply of the latter more often than once or twice a week; but one cannot live highly for a penny. There need be no reason for regret if the result of this movement should be to familiarise the pale children of city courts and alleys with porridge, "duff," dishes of peas, buttermilk, and other "formers" of the romping health of country youngsters. It is very encouraging to know that the wholesome fare provided at this low rate has been fully appreciated by the children themselves, as it deserves to be. We formerly expressed an opinion that school over-pressure owed much of its injurious effect to the underfed childhood upon which it fell. We are therefore prepared to find it stated that the school-work of the Rousdon children has much improved in quality since the introduction of the penny dinner. A similar improvement may be prophesied, if the same system be adopted, throughout the metropolis.

CHLORAL FOR SLEEPLESSNESS.

AGAIN we have to record with deep regret a sad proof that those who give or take chloral or bromide of potassium for sleeplessness are guilty of a deplorable error and do a grievous wrong. The narcotics which poison sleep also deprave the higher nervous centres, enfeeble the controlling power of the will, and leave the mind a prey to the depressing influence of a conscious loss of self-respect and self-confidence. The cultured mind feels the ignominy of this intellectual and moral depreciation with great acuteness, and in the end succumbs to the sense of powerlessness to recover self-control and do right. The depravation wrought is purely physical. The baneful influence of the lethal drug is, so to say, organic. The essential elements of the nerve tissue are blighted by the stupefying poison, as by alcohol in habitual drunkenness. In short, the recourse to chloral and bromide is precisely the same thing as a recourse to alcohol. The man or woman who is sent to "sleep"—the mocking semblance of physiological rest—by a dose of either of these narcotisers is simply *intoxicated*. No wonder habitual drunkenness of this class first impairs and then destroys the vitality of the mind-organ, and places the subject of a miserable artifice at the mercy of his emotional nature, and makes him the creature of his passions. When will the public awake to the recognition of facts with regard to the use of these most pernicious stupefacients? Persistence in recourse to them has no better excuse than unwillingness to take the trouble to search out the cause of the "wakefulness" which prevents natural sleep.

LORD BALFOUR OF BURLEIGH ON THE MEDICAL BILL.

LORD BALFOUR, writing to *The Times* on his own responsibility, says that the main ground of the opposition by the Scotch universities to the Bill, as it now stands, is not a selfish one, but a belief that the final examination contemplated will actually lower the standard required for intending practitioners—at least in the case of many who, as the law now stands, would take a university degree. We entirely differ from his lordship. Those who take the degree now, do so because it is a degree, and something higher than a mere licence to practise. For the same reason they will take it under the new Bill. The expense of the two examinations is an equally poor defence of opposition on Lord Burleigh's part. The expense will or ought to be less under the Act than it now is under a system where men get their qualification in medicine in one place, their qualification in surgery in another, and often their degree proper in a third. We heartily trust that the Scotch universities will be better advised than to recede from the public-spirited position they took up last year.

HARVEIAN SOCIETY OF EDINBURGH.

THE Harveian Society of Edinburgh held its annual festival on Monday last in the hall of the Royal College of Physicians. An interesting address was delivered by the president, Dr. Keiller, who gave his recollections of the teachers in the medical schools of Edinburgh during the last fifty years, including Abercrombie and Alison, Liston and Lizars, Syme and Simpson, Duncan and Mackenzie, *cum multis aliis*. The dinner which was given in the hall of the College was numerously attended, and among the guests were included Prof. Virchow, M. D'Abbadie, the Lord Mayor of London, the Directors-General of the Army and Navy Medical Departments, and several others of the distinguished visitors now in Edinburgh for the Tercentenary Festival. The meeting was a most pleasant one, and everything was conducted in a manner worthy of this old and distinguished Society.

PRESENTATION TO MR. HIRD, F.R.C.S.

A NUMEROUS gathering of friends, colleagues, and former pupils of Mr. Francis Hird, F.R.C.S., took place on the 8th inst. at Charing-cross Hospital Medical School, on the occasion of a presentation to him of a testimonial, upon his retirement from the office of Dean, and in recognition of his valuable services to the medical school, extending over a period of forty-five years. Prof. Huxley, P.R.S., presided, supported by Sir Joseph Fayrer and Sir Guyer Hunter, all of whom were former pupils of Mr. Hird at Charing-cross Hospital. The testimonial consisted of a service of plate and an illuminated address on vellum.

SUGAR IN MILK.

BY extirpating the mammæ of she-goats and cows, M. Paul Bert has found that a temporary glycosuria is produced at the period corresponding to the establishment of the process of lactation. On the strength of this fact, it is argued that the sugar in milk is not manufactured by the mammary gland, but is derived from some other part of the economy, and probably the liver. The precise antecedents of lactose have not yet been ascertained.

JEAN BAPTISTE DUMAS.

THE death of Dumas removes one of the most prominent figures of modern science. Born in the first year of the present century, only five-and-twenty years after the birth of chemistry itself, he has for more than sixty years been among the most diligent and successful workers in his chosen domain. Almost every department of chemistry is indebted to his research, but his clear recognition and experimental illustration of the law of substitution, by which elements as unlike one another as chlorine and hydrogen can be made to replace one another in compounds, constitute his highest scientific distinction. Few generalisations in pure chemistry have exercised more influence over chemical thought or have led to larger results in useful discovery than this. The doctrine of types, to the exposition of which Dumas devoted much time and thought, has been less fortunate as to permanent value, although for a time it did good service to chemistry. We now see that it gave a somewhat distorted view of chemical phenomena. Among the labours of Dumas, we must not forget the admirable determination of the atomic weight of carbon, which he carried out with the assistance of Stas.

SCHOOL CLOSING IN CANTERBURY.

THE managers of one of the elementary schools in Canterbury having refused to close their establishment, although requested to do so owing to a fatal prevalence of measles, application has been made by the sanitary authority to the Local Government Board. It will be remembered that, according to the last Education Code, no Parliamentary grant will be made to any school the managers of which have refused to comply with the request of a sanitary authority either to close the school for a specified time or to exclude scholars from infected houses; and in this way the request of the sanitary authority practically becomes a compulsory order. It is true that an appeal is allowed to the officials of the Education Department, but they must necessarily be guided in their final decision by the opinion of the local medical officer of health; and since it is on his advice alone that a sanitary authority would be likely to act in such circumstances, the matter after all becomes one for the local, rather than the central, authority. It is to be hoped that the Canterbury school managers will see the matter in this light, the more so as there are few diseases that show a greater tendency to spread through school agency than measles.

THE REPORTED OUTBREAK OF SMALL-POX AT RAMSGATE.

MR. WALFORD, medical officer of health for Ramsgate, has written to explain the origin of the report of the appearance of small-pox in the town. It seems that a man passed through Ramsgate on Feb. 26th, on his way from Sunderland to Whitstable, and that after his arrival there symptoms of variola presented themselves. Several cases of the disease have occurred in the latter town, where hospital tents have been provided for purposes of isolation.

HARMLESS LUNATICS IN WORKHOUSES.

WE are glad to notice that the Visiting Committee of Brookwood Asylum is enforcing the need and wisdom of providing for harmless lunatics and imbeciles in workhouses. Under proper arrangements for their care and comfort this is, undoubtedly, the proper way to dispose of them. Nothing is gained, but, on the contrary much lost, by filling asylums for the insane, where cure not less than care ought to be a primary object, with cases which are hopelessly beyond the reach of remedy. Dr. Barton declares that 20 per cent. of the cases at Brookwood are of this character. We should have thought that the proportion was even higher; but accepting the estimate of the medical superintendent, who must be the best judge, even one-fifth of the accommodation provided is too much to be wasted. The bonus of four shillings a week by which guardians have been lured to send their poor folk into asylums has proved a bait set for the economically unwary.

PARTIAL RESECTION OF THE PHARYNX AND ŒSOPHAGUS FOR CANCER.

AT the meeting of the Royal Academy of Medicine of Turin held the 8th of February, Professor Novaro presented a woman, aged forty-five, from whom he had removed, for carcinoma, the upper part of the œsophagus and the lower part of the pharynx, to the extent of two inches and three-quarters. At the date of operation (Sept. 3rd, 1883) the patient could only swallow liquids with difficulty. She was able, when presented to the Academy, after the lapse of five months, to swallow solids. She was then in good health, and presented no traces of recurrence.

RAILWAY ACCIDENTS IN 1883.

FROM a Parliamentary return just issued it appears that during last year 1167 persons were killed and 4187 injured in connexion with the railway traffic of the United Kingdom. Of the above totals 554 fatalities occurred in servants of the companies, whilst the same class who received injuries numbered 3035. It would be interesting to know how many of the above casualties were directly or indirectly attributable to the overwork to which railway officials are often subjected.

THE CORONERSHIP OF THE CITY OF LONDON.

WE understand that Dr. Wynn Westcott, Deputy Coroner for Central Middlesex, will be a candidate for the coronership of the City of London, Southwark, and the Duchy of Lancaster, vacant by the death of Mr. W. J. Payne.

ON vacating the post of Governor and Commandant of the Royal Victoria Hospital, Sir C. Pearson issued a farewell order expressing sincere regret at taking leave of all with whom he has worked in connexion with the hospital, and hoping that every success may attend the Army Medical Department, and that the future organisation of Netley Hospital may be of benefit alike to the army and to the medical service.

THE Superintendent of the Insane Asylums of Indiana, who, with the Secretary of the Board of Health, has been investigating into the condition of the poor-houses of the State, remarks in his report, "If one could tell half the truth about the poor-houses of Indiana, and the treatment of the women in them, the insane and the idiotic, I believe the women of Indiana would move upon them and tear them down."

AT the General Quarter Sessions of the Peace for the Borough of Colchester, which were held on the 10th inst., the Grand Jury made the following presentment:—"The Grand Jury would call attention to the increased immorality in the town since the modification of the Contagious Diseases Act has come into force."

IT is not often that things are put so plainly as this. In the monthly report of the Cathcart Parochial Board we read: "The Inspector then proceeded to read the medical officer's report for the month of March. There were, he said 'nineteen cases on the roll. The doctor had cured five and killed one, leaving only thirteen on the roll.' He meant t say one had died."

DR. BENJAMIN HOWARD repeated on the 12th inst. at the Salpétrière the demonstration relative to the mechanism and treatment of asphyxia, which he delivered on March 6th at the Hôpital de la Pitié, and which he had previously brought under the notice of the Royal Medical and Chirurgical Society of London.

IN consequence of the prevalence of small-pox in the East-end of London, and upon the recommendation of Sir E. Hay-Currie, the Metropolitan Asylums Board have sent circulars to the guardians of the district urging them to enforce the provisions of the vaccination laws and to promote revaccination.

THE *Maryland Medical Journal* states that a movement is on foot in New York City to found a hospital and clinic for the treatment of cancer cases exclusively. It is said that the sum of $250,000 is already furnished for building purposes.

CHOLERA and small-pox are reported to be still raging in Mandalay, and another of the king's daughters has died of the latter disease.

PROFESSOR GUIDO BACCELLI, ex-Minister of Public Instruction in the Italian Cabinet, has resumed his course of clinical medicine at the Ospitale di S. Spirito in Rome.

A BILL has been reported in the New York State Legislature legalising all degrees and diplomas granted by the United States Medical College.

Pharmacology and Therapeutics.

GELATINE-COATED PILLS.

WE have received from Messrs. Wyleys and Co. of Coventry specimens of their new oval gelatine-coated pills. They are attractive in appearance, and are taken without difficulty. The coating is entirely soluble, dissolving in the mouth in less than a minute. The pills are fairly well finished, but steps should have been taken to cover the "pin-hole," the existence of which is only too apparent.

SOLIDIFIED LINIMENTS.

Messrs. Savory and Moore have forwarded specimens of their solidified liniments, one of belladonna, and the other of cantharidis. They are likely to be most convenient, being easily carried, and not liable either to be spilled or taken by mistake for medicine, as happens occasionally with liniments in the common form. They seem well entitled to an extensive trial.

HYDRARGYRUM TANNICUM OXYDULATUM.

This preparation, which is described by Dr. Sigmund Lustgarten in the *Wiener Mediz. Wochenschr.*, is a dark-green, tasteless and odourless powder, containing about 50 per cent. of mercury, which is not soluble while undecomposed. The salt is not readily attacked by dilute muriatic acid, but is changed by very dilute alkalies, so as to form in a short time a sediment composed of extremely minute particles of mercury, the greater part of which is so small as to present under the microscope the so-called molecular movements. Whether the alkalinity of the intestinal contents is sufficient to effect the necessary reduction of the preparation has been settled in the affirmative, for the essential part of the preparation passes so quickly into the circulation as to be detected within twenty-four hours in the urine. No disagreeable symptoms appear to have been produced by the employment of this new preparation, and the results have been very satisfactory in the few cases in which it has at present been administered.

GUACHAMACA.

The active principle of guachamaca (apocyne) is found especially in the outer bark, and in the different layers of the inner bark. It is used in the form of a resinous extract, which is of a sombre grey colour, having the outward appearance of curare; it is but little soluble in water, completely insoluble in alcohol, chloroform, and ether. Its reactions are those of the alkaloids in general. The marked resemblance between this substance and curare, both physically and chemically, is reproduced physiologically. Its physiological effects have been studied by Schiffer and Sachs. Guachamaca paralyses all the skeletal muscles leaving intact the respiratory muscles. It acts chiefly on the nervous centres, which are affected much more slowly by curare. Curare is ineffective when administered by the mouth. Sachs observed that the ingestion of the extract of guachamaca in very small doses killed chickens and dogs. Schiffer was forced to give very large doses by the mouth to kill rabbits. In man the effects begin to appear forty minutes after the hypodermic injection of ten milligrammes of the dried extract. Natural sleep is said to be induced by the drug.

ASCLEPIAS INCARNATA.

White Indian hemp has again been clinically studied by Mr. Hosack Fraser. He finds that it stimulates the cardiac contractions and increases the blood-pressure. It steadies the cardiac contractions and assists in restoring the rhythm of the pulse where irregularity exists. The stage of stimulation is sometimes followed by slight depression of the circulation, and to maintain its stimulating effects the drug should be repeated at intervals of three hours. It is a speedy, potent, and trustworthy diuretic, chiefly valuable in dropsy of cardiac and renal origin. It does not excite gastro-intestinal disturbance. The root is the part employed. An infusion or a fluid extract may be administered. The latter preparation should be given in doses of half a drachm to one drachm every three hours.

TONSILLITIS AND BICARBONATE OF SODA.

At the fourth International Congress of Hygiene, held at Geneva in 1882, Dr. Jean Giné Partagas read a paper on the "Prophylaxis and Treatment of Simple Tonsillitis by means of Bicarbonate of Soda." It is stated that in the initial stage of tonsillitis characterised by pain during the act of deglutition the effects of the application of bicarbonate of soda are as certain as they are rapid. The medicament ought to be employed in substance, and may be applied with the index finger of the sufferer. Fresh applications are made every five minutes for five or six periods. After this time attempts at swallowing may be made, and the inflammation is said to be aborted. The nausea and salivation which result from the treatment, far from being bad, are powerful auxiliaries, because the violent contractions of the palatal muscles favour the evacuation of the muciparous follicles. The complete abortion of the tonsillitis can only be effected when the malady is taken at its very commencement. After the onset of fever and the appearance of tonsillar swelling, the remedy can only exert a favourable influence over the inflammation. Two or three applications a day for one or two months is said to bring about a gradual resolution of hypertrophic tonsils. The remedy seems so simple, and tonsillitis is so common, that the real value of such assertions should soon be decided.

AQUEOUS EXTRACT OF CINCHONA BARK.

Professor Redwood has recently made some experiments for the purpose of testing the feasibility of obtaining aqueous extracts of cinchona bark better suited for use in medicine than those which are at present officinal. He has always held that the red or succirubra bark is most suitable for use; that the extracting liquid should be water, acidulated so as to take up the active medicinal constituents of the bark; that the bark should be exhausted of its alkaloids in the process adopted; that the extract should contain such other constituents of the bark as are considered to be medicinally valuable; that the liquid extract should contain a specified quantity, say 5 per cent., of the mixed alkaloids of the bark; and, lastly, that the liquid extract should admit of dilution with water without becoming turbid, and, on the other hand, that it might be capable of being evaporated to dryness without impairing its solubility to any appreciable extent. A dry extract is first prepared, and from this a liquid extract can easily be made. Those who may wish to follow the details of the complicated process by which the dry extract is made should read the account given in the *Pharmaceutical Journal* of April 5th.

TERCENTENARY OF THE EDINBURGH UNIVERSITY.

WE are proverbially an undemonstrative race, and to this national characteristic is probably due the fact that the University of Edinburgh, although the youngest of the Scottish, has been the first of our English or Scotch universities to glory in its age, and to make its centenary a red-letter day in the calendar of its proceedings. On the Continent such commemorations are common enough, the universities of Leipsic and Tübingen having celebrated their fourth centenaries, Vienna its fifth, and Jena and Leyden their third; but it may safely be said that the interesting festival held during this week in what has been called the "Modern Athens" is without a parallel in the academic annals of the British isles. Graduates of the university from all parts attended to do honour to their Alma Mater, and by the bestowal of honorary degrees on men of all lands famous in the Arts which ennoble human nature, the authorities of the university have strengthened the influence which the institution under their control already possesses throughout the civilised world. A fuller account of the proceedings will appear in our next issue, but we may here mention the names of those more or less closely connected with the medical profession who received the LL.D. degree:—Fordyce Barker, M.D., LL.D., president of the New York Academy of Medicine; Sir W. Bowman; Professor Chauveau, l'Académie, Lyons; Sir Andrew Clark; Professor John Erichsen; Sir Wm. W. Gull; Dr. Henri Guéneau de Mussy, Académie de Médecine, Paris; Dr. E. Haeckel, Professor of Zoology, Jena; Dr. Haldane; Dr. E. C. Halle; Dr. S. Haughton, Trinity College, Dublin; Professor H. von Helmholtz, Berlin; Sir W. Jenner; Dr. Thomas Keith; Mr. John Marshall, President of the Royal College of Surgeons, London; Dr. H. Maudsley; Sir James Paget; M. Louis Pasteur, Paris; Professor von Pettenkofer, Munich; Dr. W. O. Priestley; Major-General Sir Henry C. Rawlinson, K.C.B.; Professor Schmiedsberg, Strasburg; Dr. John Smith; Professor R. J. Stokvis, Amsterdam; Dr. P. H. Watson, Edinburgh; Professor Virchow, Berlin; and Dr. S. Wilks, London.

On the 15th inst. a reception and conversazione were given by the Lord Provost and magistrates, upwards of 4000 invitations being issued. Later in the evening of the same day came the students' torchlight procession, in which some 700 or 800 undergraduates took part. Starting from the university, the route taken was by the South and North Bridges, round Waterloo-place, along Princes-street, Charlotte-street, and round each side of the Square, through George-street and Hanover-street to the Mound, and by Bank-street, Lawnmarket, and Castle-hill to the Esplanade, where the burning torches were gathered into a heap and allowed to burn away. The procession was a brilliant success, and passed off without any hitch, all the arrangements being of a most satisfactory description.

The engagements of the 16th were varied and numerous. In the morning a service was held in St. Giles's Cathedral, the sermon being preached by Professor Flint; this service was followed by a luncheon given in the new University buildings by the principal and the professors of the Medical Faculty. In the afternoon a dramatic entertainment took place in the Theatre Royal, the piece selected for the occasion being Andrew Halliday's *King o' Scots*, and the actors being students, assisted by a few ladies, also amateurs. In the afternoon, too, Sir Herbert Oakeley gave an organ recital in the music class-room of the university. In the evening the university conversazione took place from 8 till 11; and, to close an eventful day, the students' ball was held in the Assembly-rooms, beginning at 10 o'clock. It is needless to add that at all these gatherings were present the eminent strangers now in Edinburgh and the *élite* of the citizens.

The following congratulatory address of the Royal College of Surgeons of England was presented on the 17th instant—viz.: "The President, Vice-Presidents, and Council of the Royal College of Surgeons of England hereby offer their warmest congratulations to the University of Edinburgh on its attaining the three hundredth year of its existence. They avail themselves of this auspicious occasion to acknowledge the great public benefits rendered in the past by this ancient university in the promotion of education, the encouragement of learning, and the cultivation of science. They desire especially to accentuate their acknowledgment of the prominent position held by the university in whatever relates to the accumulation and diffusion of medical and surgical knowledge. They trust that in the centuries to come the University of Edinburgh may, with other like institutions, long pursue its honourable career and fulfil its high destiny."

The following is the address presented by the Royal College of Surgeons in Ireland: "We, the President, Vice-President, and Council of the Royal College of Surgeons in Ireland, to the Academic Senate of the University of Edinburgh, greeting. We as a surgical corporation entertain for your university that admiration which your distinguished career so justly entitles you, and congratulate you upon your entrance into the fourth centenary of your existence. We feel, as a Royal College of Surgeons, no little pride in the fact that your medical school, now one of the greatest and most important in the world, originated with our sister, the Edinburgh College of Surgeons. We sincerely trust that the future of your university may be as brilliant and productive of good as the past, and that the boundaries of the domain of medicine may be still further enlarged."

The University of Vienna has also forwarded an address of congratulation by the hands of Professor Schipper. It expresses the feelings of respect and sympathy which the Viennese professors entertain for those of Edinburgh, and adds:—"Your university, the monument of a noble and liberal-minded people, has been fostered and promoted by a wise Government. It became thus an eminent nursery of science and learning, and, like a new Athens, brought forth far-famed philosophers and poets. You may claim the glory of having advanced research, and of having in all branches of it done great and useful work. We entertain, therefore, the most cordial feelings for you on this day of your 300th anniversary, and ask the blessing of Heaven in the future for this meritorious work of your ancestors. As the interpreter of our sincere feelings, we send you one of us, Professor Jacob Schipper, who teaches your English language and literature at our university."

REPORTS OF THE GERMAN IMPERIAL BOARD OF HEALTH.[1]

III.

HUEPPE ON THE FERMENTATIONS OF MILK.—LOEFFLER ON DIPHTHERIA.

IN our previous notices of this volume (March 15th and 22nd), we have glanced through the contents of all the articles with the exception of two, which demand fuller attention. Dr. Hueppe contributes an exhaustive essay upon the subject of milk fermentation, which has been studied by many, notably by Professor Lister.[2] The article opens with a full historical review; and it is pointed out that owing to defective methods and to the use of impure material many contradictory statements have become current respecting the part played in these processes by micro-organisms. The main advance made by Hueppe rests on the employment of solid media in the cultivation processes. To test the action of organisms upon milk it is, of course, essential that the milk should first be rendered sterile—a matter of importance as regards the preservation of milk—without interference with its utility as an article of diet. Practically it is found that exposure to a temperature of 100° C. does not impair the digestibility of the milk, although it somewhat alters its chemical properties; and the most efficacious method of sterilisation is by repeated exposure to temperatures below 75° C.—i.e., between 65° and 70° C.—a method too costly for ordinary application. Raw milk contains a great variety of organisms; but when allowed to become sour one form abounds, which can be isolated and cultivated in gelatine and flesh infusions. The introduction of these cultures into sterilised milk leads to the formation of lactic acid and a jelly-like coagulum in

[1] Reports of the Imperial Board of Health. Edited by Dr. Struck, Director. Second Volume. (Mittheilungen aus dem Kaiserlichen Gesundheitsamte. Herausgegeben von Dr. Struck, Geheimen Ober-Regierungsrathe, Director des Kaiserlichen Gesundheitsamtes. Zweiter Band.) Berlin: Hirschwald. 1884.

[2] Pathological Transactions, 1878.

the milk. The organism in question, that of lactic acid fermentation, is a small broad bacterium, with terminal spores. It does not grow at temperatures below 10° C. and is most active between 35° and 42° C., and its action consists in the conversion of lactose into lactic acid with liberation of carbonic acid. Hueppe is clearly of opinion that the presence of oxygen is needful for the organism to act as a ferment; that it is not, as Pasteur holds to be the case with all ferments, "anærobic." Besides the lactic acid conversion, milk undergoes another fermentation—viz., the butyric, which has been shown to be excited by the presence of another variety of bacillus. This fermentation does not occur in the lactose itself, but only after the milk has previously undergone lactic fermentation. The "butyric bacillus" fluidifies gelatine and breaks up caseine into peptones; and it resists the action of heat better than the lactic acid organisms. The great point of interest in these researches is the demonstration that definite micro-organisms having distinctive characters when cultivated can excite chemical changes special to themselves, and the study of these milk ferments must necessarily enhance our conception of the importance of these microphytes and their place in the processes of decomposition and fermentation. Another branch of inquiry was into the nature of "blue milk," which was found to be due to another bacterium, the characters of which are described. Sterilised milk inoculated with cultures of this organism gradually becomes alkaline and does not precipitate caseine, whilst it assumes a steel grey and then a bluish tint, which is changed into deep blue on acidulation. It was further proved that this blue substance was derived not from the breaking up of lactose, but of caseine. Hueppe has also differentiated four other chromatogenous bacteria capable of giving milk a grey and a blue colour, but showing different properties from the foregoing when cultivated in gelatine.

Dr. Loeffler's article on the relation of micro-organisms to diphtheria closes this volume in a fitting manner. In it he surveys the whole literature of the pathology of this disease, from Bretonneau's classical work to the essay on Experimental Diphtheria by Dr. Heubner, which was last year awarded the prize offered by the Empress of Germany. He defines diphtheria as a morbid entity like measles or small-pox, an epidemic infectious disease; but applies the term "diphtheritis" to a special form of tissue change that may be excited by other means as well as by the virus of diphtheria. He points out that, in spite of much attention devoted to its etiology in the sixty years that have elapsed since Bretonneau wrote, there is as yet but little unanimity on the subject. This was well seen in the debate which took place last year at the Wiesbaden Congress, and is, he thinks, largely to be attributed to variations in the course of the disease, to the varying malignity of epidemics, and to the difficulties in diagnosis. The presence of micro-organisms in the pharyngeal false membranes is complicated by the facility with which microphytes of all kinds get access to this region, and the difficulty of distinguishing various kinds if the methods employed for detection be insufficient. He then proceeds to describe the histological structure of the false membrane, dwelling especially upon the facts established by Weigert and Heubner. If diphtheria be due to micro-organisms, these must be found disposed in a typical manner, and invariably in the seat of the local lesions; the organisms must be isolated and cultivated, and the disease must be produced by inoculation with these "pure cultures." Now, of all the observers (from Laycock of Edinburgh, who in 1858 considered that the diphtheritic membrane was produced by the agency of a fungus derived from the oïdium, a view disputed by Hillier) who have described fungi in the false membranes, organs, and the blood—a list including Hallier, Hueter, Tommasi-Crudeli, Oertel, Letzerich, Klebs, and many others—not one of them have been enabled to fulfil the above conditions; for not only have their views as to the precise form of the alleged specific organism been divergent, but the results of their experimental cultivations and inoculations have been equally discordant; and it cannot be asserted from their researches that the undoubted infectivity of the diphtheritic membrane may not be due to chemical rather than bacterial agency. Loeffler, therefore, set himself the task to investigate the disease strictly on the methods employed by Koch in isolating and cultivating microphytic organisms. The method of preparation employed consisted in immersing for a few minutes sections of the affected tissue in a mixture of saturated alcoholic solution of methyl blue (thirty parts) and a 0·01 per cent. solution of potash (100 parts); washing in 0·5 per cent. of acetic acid, dehydrating in alcohol, clearing in olive oil, and mounting in common balsam. Twenty-six cases were thus examined; and the anatomical details of each are described. Many of these cases were not true diphtheria, not being marked by fibrinous exudation, but only scanty (if any) cell accumulation, yet in all there was that "coagulation necrosis" which is regarded as the histological test of the diphtheritic process. In the non-exudation cases micrococci were found in the necrosed tissue as well as in the internal organs. In cases marked by membranous exudation there occurred small groups of rod-shaped organisms which stained with methyl blue, and they were only met with when there was exudation with consequent epithelial denudation. The rods were not found in the internal organs, nor were they always present in the false membrane, probably because they had been eliminated before death. Cultures were made both of the micrococci and of the bacilli. The former gave rise to appearances much like those produced by the culture of erysipelas micrococci; and they throve especially in blood-serum. Many inoculations were practised on the mouse, guinea-pig, dog, monkey, and birds without effect; in rabbits they induced either a kind of erysipelas or a kind of pyæmia, but never diphtheria. The bacilli, which in blood-serum developed into whitish colonies and which give rise to spore-like bodies of feeble resistance (being rendered innocuous by a temperature of 60° C.), were also used for inoculation. Mice and rats appeared to enjoy immunity. In the guinea-pig, false membranes formed at the seat of inoculation, with surrounding hæmorrhagic œdema and sanguinolent pleural effusion. Small birds were similarly affected. Inoculations in the trachea of rabbits were followed by the formation of false membrane; but intravenous injection had no result. Although a fatal effect was produced in the former case, no bacilli were found in the internal organs, a fact possibly explained by assuming that the bacilli exert a local action on the tissues, generating a chemical poison therein; but that they have no such effect when injected directly into the blood. Monkeys were not influenced by the inoculations. It must still be uncertain whether in these bacilli we have to do with the diphtheria virus or not; for Loeffler states that he had found in the buccal mucus of a healthy child similar organisms. He devotes other sections of his elaborate paper to a study of micro-organisms, also bacillary in nature, found in pigeons and calves which died from epidemic "diphtheritis." In each instance inoculation experiments were made with positive results. As a contribution to the pathology of diphtheria, this memoir takes high rank, and furnishes a new point of departure for future observers.

HEALTH OF CAVALRY HORSES.

THE annual return of the cavalry and artillery horses serving in the United Kingdom during the year 1883, prepared by Mr. Fleming, the Principal Veterinary Surgeon, has just been issued from the War Office. It shows the average strength to have been 11,921; the admissions into the infirmary were in the proportion of 782 per 1000, the deaths 14·68, destroyed 10·57, or together 25·25 per 1000, and the cast, exclusive of those sold on account of reduction of establishment, 95·38 per 1000. These results compare favourably as regards the mortality with those of the two preceding years, the only ones which have been published, but the admissions show an increase; the number cast in each period is nearly the same. On the average of these two years the admissions were 687 per 1000, the deaths 25·28, destroyed 9·39, or together 34·67, and the cast 94·83 per 1000. The high ratio of deaths in these two years was due to general diseases, chiefly anæmia and asthenia, and to those of the respiratory apparatus in 1882. In 1883 the deaths from glanders and farcy amounted to 17, being nearly double those from the same cause in the preceding years. Nine of the cases occurred at Aldershot, where the disease was introduced by an officer's charger which became infected at Alresford; six more at Chatham, where they contracted it from an officer's charger which became infected in Egypt. One case of farcy occurred at Leeds, and the other at York.

The most prevalent disease among the horses during the year was catarrh, but the class which gave rise to the largest number of admissions was that of the locomotory apparatus

chiefly sprains, contusions, punctures and exostosis (splint). The most fatal diseases were those of the respiratory apparatus, and next to them of the locomotory; almost all of the mortality by the latter appears under the head of "destroyed." The most frequent cause of casting was "old age." Out of a total of 1137 cast there were 737 accounted for under this head, whose average length of service was twelve years and a half. Laminitis, laryngismus, travicular disease, sprains and anæmia are among the more frequent causes of casting. It is satisfactory to find that ophthalmia does not appear as the cause in a single instance; indeed, the prevalence of disease of the eye is remarkably small in the service, only 102 admissions having occurred in the whole force during the course of the year. A table of the admissions and mortality by ages shows the greatest amount of cases to occur among horses of four years of age, probably from the number brought into the service at that age, in whom disease arises from the change of diet and treatment. The sickness appears to decrease till the age of eleven or twelve, when it again rises, but not to such an extent as at four years. The mortality also is highest at the same age, and does not rise so high again till sixteen; but the numbers are still too small to justify any positive deductions from them or to furnish a reliable average. We must congratulate Mr. Fleming upon this contribution to the vital statistics of horses. We trust he may be able to add to his future returns some remarks on the chief causes of disease among them, and on the sanitary measures adopted in the Army for its prevention. We know of no man more capable of doing this; and we shall be glad to find that there are no red-tape obstacles thrown in the way of his turning to good account the advantages he enjoys as the Principal Veterinary Surgeon of the Army.

THE PARKES MUSEUM.

IT may be said of this institution *vires acquirit eundo*. At the last two meetings of council as many as forty-nine new members were admitted, among whom were the Right Honourable Sir Charles Dilke, Sir Spencer Wells, Sir William Bowman, Dr. Roth (Surgeon-General of the Saxon Army), Dr. Habershon, Mr. Bryant, Mr. Morrant Baker, Mr. Charles Barry, and others. The council have shown every disposition to make the museum useful, especially to the two great professions of medicine and architecture. As it exists at present, it is not identified with any one medical school, but is freely for the benefit of all and for the whole profession. As it had its origin at University College, so it seems to have adopted the motto of that institution, *Cuncti adsint*, as its own, and it is gratifying to notice that members of the staff of all the great medical schools have become members. The library, under the fostering care of Dr. Louis Parkes, the honorary librarian, is increasing in importance daily, and appears to be destined to become a very valuable centre for the already bulky literature of hygiene. The cost of installation has been very heavy, but the council have spared neither their energies nor their pockets, and there is every sign that they are likely soon to enter on the smooth waters of success. The final lecture of the winter session will be given on Thursday next, at 5 P.M., by Dr. John A. Voelcker, who will discourse on "Milk," a subject upon which, as one of the chemists of the Royal Agricultural Society, he is well qualified to speak.

The council intend holding a conference on Cremation during the International Health Exhibition, and they will be glad to receive models, drawings, and any information bearing upon the subject. The conference will deal with the question of the disposal of the dead generally, and advocates of burials in the earth will be given every opportunity of expressing their views. Of the importance of the question, both from a sanitary and an economic point of view, there can be no doubt, and it is to be hoped that the discussion of the question may help to form a sound public opinion.

INTERNATIONAL HEALTH EXHIBITION, LONDON, 1884.—His Royal Highness the Duke of Cambridge, K.G., has consented to open this Exhibition, on behalf of the President, his Royal Highness the Prince of Wales, on Thursday, the 8th of May, at noon.

WILLS OF MEDICAL MEN.

THE will and codicil of Mr. Joseph Glen, Physician-General, formerly of the Hon. East India Company's Service, late of the Oriental Club, Hanover-square, and of 8, Brook-street, who died on Jan. 31st last, were proved on the 1st ult. by Mr. James Gilbert, Deputy Surgeon-General in the late H.E.I.C.S., Mr. George John Braikenridge, and Mr. George Henry Clarkson, the executors, the personal estate amounting to upwards of £32,000. The testator leaves to the National Portrait Gallery the portrait of Mr. Joseph Hume, M.P., by Walton; to the National Gallery, twelve pencil drawings of Constantinople and the Bosphorus; to the Infirmary at Montrose, £200; to the United Session of the Presbyterian Church at Montrose, £200; upon trust for his half-sister, Mrs. Elizabeth Wight, £1500; upon trust for his niece, Mrs. Mary Gilbert, £4500; and considerable legacies to other relatives, and also to his executors and others. The residue of the personalty is to be divided among certain of the legatees in proportion to the amount of their legacies.

The will of Henry Travis, M.D., late of 20, High-street, Camden-town, who died on Feb. 4th last, was proved on the 7th ult. by Mr. Ralph Watson and Mr. John Ivory, the executors, the personal estate amounting to over £12,000. The testator bequeaths to his sister, Mrs. Elizabeth Potts, an annuity of £120; and liberal legacies to executors and others. The residue of his real and personal estate he leaves to his sisters, Mrs. Elizabeth Potts and Miss Hannah Harriett Travis, and to his nephew, Thomas Potts, in equal shares.

The will of William Henry Parsey, M.D., late of Hutton, Warwickshire, who died on Jan. 10th last, has been proved by Mrs. Julia Parsey, the widow, Miss Julia Mary Parsey, the daughter, and the Rev. Thomas Bourne Dickins, LL.D., the executors, the personal estate amounting to over £8000. The testator leaves £100 to his wife; his piano to his daughter; his medical, surgical, and some other books to his son Edward William; and the residue of his real and personal estate upon trust for his wife for life, then one moiety for his said daughter, and the other moiety for his said son.

The will of Edward Golledge Pitt, M.D., late of 17, Prince's-square, St. George's-in-the-East, who died on Jan. 27th last, at Forest-gate, Essex, has been proved by Mr. William Edward Pitt, the son, and sole executor, the personal estate exceeding £1500. The testator gives £500 to the Religious Tract Society, and the residue of his real and personal estate equally between his said son and his daughter, Salome Harrison Pitt.

The will of Edgar Barratt, M.D., late of 46, Grand Parade, Brighton, who died on Nov. 29th last, has been proved by Mr. Oglethorpe Wakelin Barratt, M.D., the sole executor, the personal estate exceeding £1100. The testator bequeaths £200 to the Orphanage of St. John's Roman Catholic Church, £200 to the Sussex County Hospital, his books and instruments to the Brighton Dispensary, and legacies to relatives, executor, and servant. The residue of his property he leaves to his brothers and sister.

The following legacies have recently been left to hospitals and other medical charities:—Sir William Henry Poland, formerly of the firm of Messrs. P. R. Poland and Son, late of 2, Blackheath Villas, Blackheath, £50 each to the Royal Hospital for Incurables, Putney, and the Royal Kent Dispensary, Greenwich, and nineteen guineas to the Hospital for Diseases of the Heart, Soho-square.—Mr. Robert Hanbury, for more than fifty years a member of the firm of Messrs. Truman, Hanbury, Buxton, and Co., of the Brewery, Brick-lane, Spitalfields, late of Poles, Thundridge, Herts, £100 to the Hertford Infirmary.—Mrs. Mary Tait, late of 22, York-terrace, Regents'-park, as part of the "Carlyle bequest," £2000 each to the Royal Infirmary Lunatic Asylum and Lock Hospital, the Northern Hospital, the Southern Hospital, the North, South, and East Dispensaries, the Infirmary for Children, and the Bluecoat Hospital, all of Liverpool; the Hospital for Consumption and Diseases of the Chest, Brompton, St. George's Hospital, Hyde-park-corner, St. Mary's Hospital, Paddington, and the Birkenhead Hospital; and £1000 each to the Bootle Borough Hospital, the Consumption Hospital, Liverpool, and the Eye and Ear Infirmary, Liverpool. The general

residue of Mrs. Tait's estate is to be applied in augmentation of the charitable bequests given by her will proportionately to the respective amounts thereof.—Mr. Isaac Henry Tyas, late of 15, King-street, Cheapside, and of 89, Cambridge-street, Pimlico, £100 to Guy's Hospital, for which he was many years the solicitor.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Holdsworthy (*Rural*).—In this district nothing very special occurred during the year 1883; the general death-rate was 16·8, and that for infants was below the average. Dr. Ash draws attention to the water-supply, which has very generally undergone improvement in the district, but such a thing as a really first-class water for domestic purposes is stated to be almost unknown. This circumstance arises mainly from the fact that the supply is very generally derived from shallow wells extremely liable to surface pollution.

Thingoe (*Rural*).—The death-rate for the past year was 16 per 1000. Scarlet fever has been somewhat frequent throughout the district, but by means of such measures of isolation and disinfection as were available its spread was somewhat checked. Some houses which were overcrowded and unfit for habitation were, under Mr. Kilner's advice, closed under a magistrate's order.

Mile-end, Old Town.—Dr. Corner reports of this metropolitan district that its estimated population is 110,000, and that its death-rate, which is unfortunately calculated on a parochial year ending March, was for 1882–83 at the rate of 24·5 per 1000. It is stated that special vigilance is maintained over the School Board's schools in connexion with the spread of infectious diseases, and information is given as to nuisances, &c., dealt with by the inspector of nuisances. Apart from this, and a mere summary of action, taken in the main where disease had actually occurred, there is not much to show what is needed, advised, or being done to prevent disease and to improve the sanitary conditions under which this large population is living.

Whitechapel.—In this district the annual report is appended to a quarterly one, and is almost exclusively statistical. The deaths were at the rate of 24·1 per 1000. The work carried out for general administrative purposes is given in the form of a table, and it includes a large amount of current sanitary work.

Uxbridge (*Rural*).—After making certain necessary corrections, Mr. Roberts gives the death-rate for this district during 1883 as 19 per 1000, the deaths in Norwood parish having been increased by the unfortunate fire at Dr. Boyd's asylum. The state of Harefield village is again adverted to, the present system of drainage into cesspools necessitating a source of danger to the wells. It is true that at a certain period of the year samples of water which were examined exhibited indications of sewage, but this fact as regards any individual samples is unimportant compared with the known circumstance that the strata from which water is derived are at all times liable to receive polluting matters.

Kettering (*Urban*).—The death-rate for this district is the lowest but one recorded by Mr. Dryland—namely, 15 per 1000. Zymotic diseases have caused but few deaths; indeed it is stated that only three deaths have occurred from typhoid fever during the past seven years, and this in a population of 12,500; it is also evident from the details contained in the report that this low mortality is largely due to the remedial action as to water and drainage which is taken whenever opportunity occurs. Almost all the old cesspools have been done away with, closets are properly connected with the sewers, the majority of the sinks have been disconnected, and flushing of sewers is regularly carried out.

Barnsley (*Rural*).—Some steady progress is being made in sanitary matters. As opportunity offers, although this is unfortunately at times limited to the actual occurrence of such a disease as enteric fever, wells are closed, fresh water supplies are provided, proper privies and ashpits are constructed, and faulty drainage arrangements are remedied. A constant water-supply has been provided, which will be available for more than half the population of the district. As so frequently happens when contractors are employed to scavenge, there is imperfect performance of duties, and this is the case, as reported by Dr. Sadler, in one part of his district. The obvious remedy is that the sanitary authority should no longer delegate this important work to others. The death-rate in 1883 was 19·28 per 1000 living.

Belfast.—During the four weeks ending March 22nd the births registered amounted to 561 and the deaths to 425. The average death-rate from all diseases was 25·4, from chest affections 11·7, and from zymotic diseases 2·4 per 1000 respectively. The 41 deaths from zymotic diseases included 12 from scarlatina, 10 from whooping-cough, and 13 from diarrhœa.

Cork.—For the month ending March 22nd the births numbered 170, or a rate of 27·5, and the deaths 162, or 26·2 per 1000. These returns, when compared with those of the corresponding period of last year, showed a considerable decrease in the urban death-rate. There were no deaths recorded during the month from either typhus, typhoid, or scarlet fever.

CHRISTCHURCH, NEW ZEALAND.

The annual report for 1883, issued by Dr. Courtney Nedwill for this colonial district, shows that Christchurch and Sydenham had last year a mortality at the rate of 16·89 and 16·3 per 1000 respectively. The infantile mortality is high and the causes are much the same as in the thickly peopled mother country—namely, the breathing of air impregnated with organic impurities from the decomposition of filth in and around dwellings, the ill-ventilation of dwellings and especially of bedrooms, and also the want of breast-milk. Diphtheria and croup together caused 17 deaths in the two places, and in several instances the disease was associated with faulty sanitary conditions. The system of excrement and refuse disposal is about as bad as it can be, and the sanitary authority does not yet seem to understand that in a populous district like their own, private individuals ought not to be made responsible for the scavenging of excreta and house refuse. We learn that out of about 1800 householders only 420 subscribe for the services of the "nightman," and it is implied that more should join the subscription list. But surely, if a regular system of excrement and refuse removal were carried out by the officers of the sanitary authority, and the burden of it thrown on the ratepayers as a whole, the cost would be far cheaper and the expense would be more uniformly distributed. The cleansing of one's neighbour's premises is a matter in which all have concern, for it is not of much use for one man to subscribe for the services of a scavenger if his immediate neighbour stores up filth in the adjoining premises. In this country we are fast learning that everywhere but in rural districts no system of scavenging succeeds unless it is regularly undertaken by the sanitary authority themselves. So, also, where an earth system, such as appears to exist in Christchurch, prevails, the same authority must supply and change the pails, and provide earth as well as remove refuse, if success is to be attained without nuisance.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5403 births and 3418 deaths were registered during the week ending the 12th inst. The annual death-rate in these towns, which had been equal to 20·0 and 22·7 per 1000 in the two previous weeks, declined again to 20·4 last week. The lowest rates last week were 14·9 in Leicester, 15·0 in Bristol, and 15·8 in Huddersfield. The rates in the other towns ranged upwards to 25·6 in Manchester, 30·2 in Cardiff, 30·7 in Halifax, and 31·3 in Wolverhampton. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 471 and 529 in the two previous weeks, were 522 last week; they included 192 from whooping-cough, 142 from measles, 63 from scarlet fever, 49 from "fever" (principally enteric), 28 from diphtheria, 25 from diarrhœa, and 23 from small-pox. The death-rates from these diseases were lowest in Blackburn and Hull, and highest in Newcastle-upon-Tyne, Leeds, and Portsmouth. The greatest mortality from whooping-cough was recorded in Salford, Bolton, Liverpool, and London; from measles in Portsmouth, Oldham, Leeds, and Wolverhampton; from scarlet fever in New-

castle-upon-Tyne, Sheffield, and Leeds; and from "fever" in Bolton. The deaths from diphtheria in the twenty-eight towns included 17 in London, 2 in Portsmouth, 2 in Leicester, 2 in Leeds, and 2 in Cardiff. Of the 23 fatal cases of small-pox, 8 occurred in London, 4 in Liverpool, 3 in Newcastle-upon-Tyne, 2 in Birmingham, 2 in Sheffield, 2 in Sunderland, and 1 both in Derby and in Hull. The number of small-pox patients in the metropolitan asylum hospitals and hospital ships, which had risen from 148 to 272 in the three preceding weeks, further rose to 355 on Saturday last; 92 new cases were admitted to these hospitals during last week, against 92 and 39 in the two previous weeks. The Highgate Small-pox Hospital contained 17 patients on Saturday last, four new cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 359 and 357 in the two previous weeks, declined to 286 last week, and were no fewer than 185 below the corrected weekly average. The causes of 86, or 2·5 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Brighton, and Plymouth; while the proportions of uncertified deaths were largest in Hull, Huddersfield, Salford, and Wolverhampton.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had slowly increased in the four preceding weeks from 20·9 to 24·1 per 1000, further rose to 25·2 in the week ending the 12th inst.; this rate was no less than 4·8 above the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 17·2 and 18·7 in Leith and Aberdeen to 28·6 in Glasgow and 41·0 in Paisley. The deaths in the eight towns included 103 which were referred to the principal zymotic diseases, against 88 and 101 in the two previous weeks; 41 resulted from whooping-cough, 19 from measles, 15 from diarrhœal diseases, 12 from "fever," 10 from diphtheria, 6 from scarlet fever, and not one from small-pox. The rate from these diseases in the Scotch towns last week averaged 4·3 (against 3·1 in the English towns, and ranged from 1·7 and 2·1 in Perth and Greenock, to 4·2 in Glasgow and Edinburgh and 14·3 in Paisley. The high rate in Paisley was due to a severe epidemic of measles. The 41 fatal cases of whooping-cough in the eight towns were within one of the number in the previous week, and included 21 in Glasgow and 14 in Edinburgh. The deaths from measles, which had been 14 and 11 in the two previous weeks, rose to 19 last week, of which 11 occurred in Paisley and 4 in Glasgow. The 12 deaths referred to "fever" showed a considerable increase upon recent weekly numbers, including 3 in Leith and 2 both in Glasgow and Aberdeen. Seven of the 10 deaths from diphtheria occurred in Glasgow; and 3 of the fatal cases of scarlet fever were returned in the same town. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 108 and 112 in the two previous weeks, further rose to 128 last week, but were 34 below the number in the corresponding week of last year. The causes of 91, or 15 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 27·2 and 29·6 per 1000 in the two previous weeks, declined to 25 in the week ending the 12th instant. During the thirteen weeks of last quarter the death-rate in the city averaged 27·9 per 1000, whereas it did not exceed 20·4 in London and 20·6 in Edinburgh during the same period. The 155 deaths in Dublin last week showed a decline of 44 from the high number in the previous week, and included 10 which were referred to the principal zymotic diseases, against 17 and 20 in the two previous weeks; 7 resulted from "fever" (typhus, enteric, and simple), 1 each from scarlet fever, whooping-cough, and diarrhœa, and not one either from small-pox, measles, or diphtheria. These 10 deaths were equal to a zymotic rate of 1·5 per 1000, the rate from the same diseases being 3·4 in London and 4·2 in Edinburgh. The deaths referred to "fever," which had been 10 and 8 in the two previous weeks, further declined to 7 last week, and the fatal cases of scarlet fever and diarrhœa showed a considerable decline from the numbers in recent weeks. The deaths of infants showed an increase of 71, while those of elderly persons were fewer by 10 than the number in the previous week. No deaths from violence was recorded; and 56 deaths were registered in public institutions. The causes of 22, or more than 14 per cent., of the deaths registered during the week were not certified.

Correspondence.

"Audi alteram partem."

THE ROYAL COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—In your dispassionate and complimentary notice, in last week's issue of THE LANCET, of a letter from Mr. Charles Hawkins on the above subject, you rightly observe that, "over and above suggesting several and imperative reforms," his letter "gives emphasis to the general expression of dissatisfaction and disappointment with the recent meeting of Fellows and Members." It is with some hope that this dissatisfaction and disappointment may yet be tempered with something like content and approbation by the future action of the Council, that I venture to intrude myself on your notice, with a sincere wish that any suggestions I may offer may prove of some service or help towards effecting thoroughly satisfactory changes in our charter. I entirely concur in all Mr. Charles Hawkins' remarks; and, were it in my power, would strongly support them in Council or in public. As regards the tenure of office by the president, I most strongly feel that the importance of the office would be greatly heightened were it conferred for a few years rather than, as at present, for one year only. I long ago advocated this change in a letter addressed to the *British Medical Journal*. Since then I have seen no reason to change my opinion, but facts have rather tended to strengthen it. Mr. Charles Hawkins can speak with more authority than I am able to do on the question of the necessity of continuing or abolishing the office of vice-presidents. He has served in the Council; I have never sought a seat therein, though often urged to do so, for reasons well known to my professional friends. I have therefore no personal interest to gain by what I write. I am only influenced by regard for the honour of the profession to which I belong in thus intruding myself upon your notice. But Mr. Hawkins' experience as a former member of Council enables him to state with authority that no special duties attach to the chairs of vice-presidents, no particular authority is vested in them, no important official rights are exercised by those who hold such office. What then is there to indicate the advantage of continuing such an office? The holders of these routine chairs rather stand in the way of the proposal to prolong the period of service of future presidents of the Royal College of Surgeons of England. It is to my mind, as I feel sure it will be to that of many others, most important to the dignity, as well as to the public consideration and authority, of the College of Surgeons that the president should hold office for some few years. The office of president would then become really a matter of *selection*, in place of what it now simply is, a case of *election*, by seniority and rotation. No particular honour attaches to it; no particular merit is required to ensure it; it comes almost as a matter of course to the senior vice-president, and severe, indeed, must be the feeling to induce men, under the present rules, to mark the low estimate of a colleague by placing any junior in the chair of president. Such is not the case in the College of Physicians. We cannot do better than follow their example, so long, so well tested by time, and proved only to be pregnant with honour and good results.

I quite second Mr. Charles Hawkins' observations with respect to the—I might almost say, childish—restrictions, by certificates of character, demanded by the charter from candidates for seats in Council. Every man's character who may seek a seat therein is sure to be well known in the profession, and before the day of election arrives will have been as much discussed as can be desired or deserved. No candidate for such a position should have to solicit, or be required to produce, such farcical forms of certificate. Written characters are looked on with suspicion in domestic households; they surely can be dispensed with among members of such a profession as ours, each of whose personal and professional estimate is clear as the sun at noonday long ere his turn of

a seat in Council may have disturbed his thoughts. This indignity should surely be wiped out of the charter. Mr. Hawkins refers most properly to the importance of *selection* of examiners. I hope I may be also permitted to speak on this question. On three different occasions I have had the honour of being selected an examiner in surgery by the Royal College of Physicians. I have also for some years acted as one of the examiners of candidates for Her Majesty's naval and military services, so that my experience as an examiner may somewhat justify this expression of an opinion. By accident the College of Surgeons has had the advantage of the services of the Professor of Anatomy in the University of Cambridge. Why should the Professor of Physiology in the same university, or the like professor at Oxford, or the Professor of Anatomy in University College or King's College, London, without the title of F.R.C.S., be unattainable? Even the universities appoint examiners not of themselves. Until the other day the appointment of the present distinguished President of the Royal Society as an examiner was impossible!

I wish now to speak of matters not referred to in Mr. Hawkins' letter. Before the Council finally decide the points of the new charter, it appears to me that it would not only be an act of courtesy to the Fellows and Members, but that it is due to them, and to the Council also, to call a general meeting, and place any revised plan of charter before such a meeting of Fellows and Members for final approval. I personally would even urge the Council a step further, to act with a thoroughly liberal spirit, such as would be cordially recognised and fully appreciated by the large body of Fellows and Members. Before the final alterations in the charter are decided on, let a committee be appointed, to consist of a certain number of the Council, a certain number of Fellows not in the Council, and a certain number of the Members—a joint committee elected to consider the whole question, to draw up such suggestions as may appear to them desirable, and having reported them to the Council, let the latter call a final meeting to discuss, sanction, or negative such points as may appear desirable. We cannot too strongly bear in mind that the new charter is not a thing that simply belongs to the Council. The Council is but the executive of the Fellows and Members. The charter should be the charter of our great Corporation—President, Council, Fellows, and Members. The Fellows and Members have the moral right to demand that any new charter should embody their views as well as those of the Council, and if rightly viewed it will be so considered by all. The Council by carrying out the suggestions and wishes of the body corporate will have done their best to meet the objects of the Fellows and Members, and will have done all in their power and wisdom to obviate serious defects being handed down to their successors to deal with in time to come.

I feel satisfied the Council individually and collectively have but one object—viz., to uphold the honour of our profession, and by modifying the present charter, as all could wish, to render that honour unassailable. But there are always in small bodies of men some individuals who are difficult to move, who are more or less prejudiced by things as they are, rather than turn to those which should be; so when considering the question of the presidency, such may feel averse to the change suggested by Mr. Hawkins from an inward misgiving that their turn of service may never come. Such personal feelings should not weigh when the honour and welfare of the College and profession are placed in the scale. But human nature is weak—

> "When self the wavering balance shakes,
> It 's rarely right adjusted."

I must draw attention to the fact, to which my notice was called by others, that though the important question of the future charter was to be discussed at a general meeting of the Fellows and Members, convened by the Council, with ample notice to everyone concerned, several Members of the Council were not present, nor were excuses offered by those absent. Illness alone should have been the excuse. If men undertake duties attaching to a seat in the Council, but which they have no care to carry out, or are unable to attend to, an additional reason may be urged for a joint committee of Council, Fellows, and Members to be appointed to consider the future charter, and this at a special public meeting. Do not the above observations apply also in support of Mr. Hawkins' suggestion for an alteration in Section 5 of the bye-laws?

There is, perhaps, no immediate haste to settle these suggested alterations. Let us carefully, cautiously, and thoroughly consider them, and when finally approved by the Fellows and Members in public meeting assembled, nothing would remain but the graceful duty of the Council to carry them out. *Sat cito, si sat bene.*

I am, Sir, yours obediently,
Grosvenor-street, April 14th, 1884. GEORGE D. POLLOCK.

To the Editor of THE LANCET.

SIR,—The amusing letter of Mr. Harry Campbell in your last issue on Dr. Hickman's proposal calls, I think, for a few words of comment.

Your correspondent states that "Dr. Hickman proposes that the licentiate of the amalgamated Colleges should be permitted to write after his name, Licentiate of the Amalgamated College." Mr. Harry Campbell then proceeds to invent a title (L.A.C.), which he insinuates is what Dr. Hickman would suggest. He then adds M.D., M.S., making his imaginary licentiate the possessor of the following initials, L.A.C., M.D., M.S., and tells us that such a proposal strikes him as being most humorous. Mr. Harry Campbell is to be congratulated on possessing such a keen sense of humour. The actual text of Dr. Hickman's motion will be found in your issue of the 29th March, and contains no words referring to the initials L.A.C.

Your correspondent goes on to say that Dr. Hickman fails to recognise the essential nature of a degree, and that a degree can only be granted by a university; and, further, that any body empowered to confer degrees becomes a university. Mr. Harry Campbell speaks as though the present state of affairs were as unalterable as the laws of the Medes and Persians, quite overlooking the fact that before the year 1858 the Archbishop of Canterbury granted a doctorate conferring the degree of M.D. Perhaps Mr. Harry Campbell will tell us that the archbishop was a university. The terms "Architect Jones," "Sculptor Robinson," are not fair examples of titles. They are never seen on door plates nor visiting cards, while that of Dr. Smith is a very usual one. But it is evident that the mere right or privilege to prefix "Dr." would not place the English general practitioner on an equal footing with his more fortunate Scottish brother who has undergone no severer test of his proficiency in medical learning. What is required by English practitioners is a solid right and not an empty title of courtesy.

Mr. Harry Campbell, further on in his letter, imagines an unfortunate individual saddled with a multitude of initials after his name. The cure for this ailment is simple. The mythical "John Jones" is not bound to offer himself as a candidate for honours and titles which he considers onerous. After all, the objection which Mr. Harry Campbell has to a long string of letters is not very reasonable as an argument against Dr. Hickman's motion. A substitution of M.D., M.S., for M.R.C.S., L.R.C.P. Lond., is a clear gain of several letters; and the owner of these degrees is not forced to take M.A., M.D. degrees at any university if he has an objection to repetition.

If your correspondent has any real and well-founded objection to Dr. Hickman's proposal, let him by all means bring it forward; but mere ridicule of the motion is no argument against it. I am not a L.R.C.P. Lond. myself, and have no titular decorations to gain by the passing of the motion, and I therefore trust you will allow that my remarks are unprejudiced by selfish motives, and are only inspired by a sense of fair play.

I am, Sir, yours very truly,
A. ST. CLAIR BUXTON, F.R.C.S.
Orchard-street, Portman-square, W., April 15th, 1884.

THE UNIVERSITY OF LONDON LODGE.

To the Editor of THE LANCET.

SIR,—Permit me through your columns to make known to the medical graduates of the University of London that H.R.H. the Prince of Wales, as Grand Master, has issued a warrant for the consecration of a new Lodge of Freemasons to be called as above, and that the ceremony will be performed by the Earl of Carnarvon on the 14th of May. I shall be glad to give any information to gentlemen wishing to join, or to others desirous of being initiated, who are members of the University.—Yours faithfully,

ALFRED MEADOWS.
27, George-street, Manover-square, April, 1884.

THE DIASTOLIC MITRAL HEART MURMUR.

To the Editor of THE LANCET.

SIR,—An article by Dr. Austin Flint of New York, which appeared in your issue of March 8th, and in which is given an explanation of the production of the mitral diastolic heart murmur, leads me to send the following note:—

Dr. Flint says: "These murmurs are produced by the gravitation of the blood owing to the situation of the auricle, and by a *vis a tergo* incident to auricular distension before the muscular contraction of the auricle takes place." The gravitation of the blood is entirely out of the question, for the murmur is quite as distinct when a patient is in the recumbent as when he is in the erect posture. The auricles probably never become fully distended until immediately before their contraction, and their distension can therefore never drive the blood into the ventricle with sufficient force to produce a murmur.

Dr. Balfour, in his "Clinical Lectures on Diseases of the Heart," inclines to ascribe this murmur to a *vis a fronte*; and, from cases of mitral diastolic murmur which I have seen, and from physiological considerations, I should say that the *vis a fronte* is the chief, if not the only, cause of the murmur. It is, I believe, produced by the blood being drawn through a stenosed mitral orifice by an actively dilating ventricle. That the dilatation (or relaxation) of the ventricle is active, and not merely passive, may be argued from the following experiment, which is shown by Professor Rutherford to his class of physiology every year. The gastrocnemius of a recently killed frog, with the sciatic nerve attached, is laid upon the surface of mercury, and so placed in front of an oxyhydrogen lamp that its shadow may be thrown upon a screen. The sciatic nerve is laid across the terminals of an induction coil, and opening induction shocks are sent through it. The muscle, when thus stimulated, contracts; and, if the shock is single and not too powerful, returns immediately to its former length. This is more easily demonstrated if the nerve is so laid across the electrodes as to fix the end of the muscle to which it is attached, for then the distal end of the muscle alone changes its position. If now the point of a rod be placed on the screen in the position of the shadow of the distal end of the muscle, and an opening induction shock be sent through the nerve, the muscle shortens, and a considerable space is seen between its shadow and the pointer. After a single induction shock the muscle returns immediately to its former length—i.e., there is an active elastic recoil of the contracted muscle. The force of the active recoil is about one-fifth of the force of the contraction. If the induction shock be very strong, or if repeated shocks be given, the muscle appears to lose elasticity, for it then does not return quite to its former length, or returns only very slowly. I think everyone will allow that if the left ventricle, like the frog's muscle, recoils actively, and with a force equal to one-fifth of the force of its contraction, it will during the first part of its diastole draw blood into its cavity from the auricle; and that, if the mitral valve be stenosed, a diastolic murmur will thereby be produced just as it would be by a similarly powerful *vis a tergo*.

In cases of mitral stenosis complicated by mitral incompetence, I have observed that when the left ventricle was weak and the patient suffering greatly from backward pressure, a marked presystolic murmur was to be heard and its thrill felt, and that either no diastolic murmur, or only a very slight one, could be detected. And I have noticed in the same patient that, as the left ventricle became more powerful under the influence of a drug allied to digitalis, the presystolic murmur became less distinct, and a marked diastolic murmur was developed, which could be both auscultated and palpated over the mitral area. I think that the only feasible explanation of this is that as the left ventricle became more powerful to send the blood onwards, so, too, its active recoil became more powerful, and it drew blood into its cavity through the stenosed mitral orifice with such force that a murmur was produced. The reason why the presystolic murmur became less evident must have been because the left ventricle was almost completely filled by the suction power of the ventricle before the auricular contraction set in.

I am not, of course, putting forward the active recoil of the ventricles of the heart as a new fact, for it is pretty generally recognised by physiologists, although I think not sufficiently so by physicians. I am merely drawing more particular attention to it as the cause of the diastolic mitral murmur. And the case I have quoted gives an interesting support to the explanation.

I am, Sir, yours truly,

J. LOCKHART GIBSON, M.B.,
Senior Demonstrator of Practical Physiology,
University of Edinburgh.

April 8th, 1884.

THE INTERNATIONAL HEALTH EXHIBITION AND THE "CHEMICAL LUNG."

To the Editor of THE LANCET.

SIR,—Messrs. Krohne and Sesemann applied in due course for space to exhibit the "chemical lung" at the forthcoming International Health Exhibition, but have received notice that there is no space either for that or for their own special exhibits. I appealed against this decision, seeing that the "lung" would occupy really no space available for other purposes, hanging as it would from the roof, or by brackets from the wall; but in reply received a letter stating, "Your application cannot be entertained, as the 'lung' is not an object which comes within the limits of our classification." I have written to point out the great misconception that must be entertained regarding the nature of the "lung"; and in the meantime appeal to you for aid (knowing that you are satisfied that the "lung" has a value) in order to secure a full investigation of the merits of my scheme, as I assert it to be the only means at present known by which the air of inhabited rooms can be really disinfected, and that independent of ventilation. The "lung" really destroys germs in a room without destroying the patient. This no other germicide can do. It renders at the same time the air of a room, however foul, free of organic as well as of inorganic matters. The name "chemical lung" is objected to by many, but surely if open spaces are called the lungs of our towns there can be no impropriety in naming my invention a "chemical lung."

I am, Sir, yours, &c.,

R. NEALE, M.D.

Boundary-road, South Hampstead, N.W., April 14th, 1884.

*** Dr. Neale seems to have reasonable grounds of complaint. It is difficult to conceive what the promoters of the Exhibition think a Health Exhibition should be when they exclude an apparatus such as Dr. Neale's because it does not come "within the limits of our classification." The obvious answer is, either the limits should be extended or the system of classification revised. No one who has had an opportunity of witnessing one of Dr. Neale's demonstrations can doubt the efficiency of the "chemical lung." To the non-official mind it is plain that the "lung" deserves not only a place in the Health Exhibition, but a prominent one.—ED. L.

THE WESTMINSTER UNION.

To the Editor of THE LANCET.

SIR,—I think the recent action of the ratepayers of St. Ann's and St. James's deserves more than a passing notice from the members of the Poor-law medical service. It will be in the recollection of most of your readers that for some time past Dr. Rogers has had to put up with continual annoyance from the master of the Westminster Union Workhouse, and persecution from certain of the guardians, culminating in an official inquiry into the conduct of the master by two inspectors of the Local Government Board. Several of the charges were proved against the master, one tithe of which, if proved against a medical officer, would have resulted in his dismissal. The Local Government Board, however, after passing a censure upon his conduct, allowed the master to retain his office in deference to the wishes of the majority of the guardians, which majority, after making several frivolous charges against Dr. Rogers, suspended him. Dr. Rogers' suspension was subsequently removed by order of the central authority, and the ratepayers have now most forcibly demonstrated their approval of Dr. Rogers' conduct by turning out the thirteen guardians who opposed him and supported the master. This medical victory ought to inspire courage, and afford comfort to many a long-suffering Poor-law medical officer.

I am, Sir, yours truly,

J. WICKHAM BARNES.

London, April 16th, 1884.

WOOD-WOOL AS A SURGICAL DRESSING.

To the Editor of THE LANCET.

SIR,—In your last issue mention is made by Mr. Ormsby, of Dublin, of wood-wool as a useful dressing after operations. As I have had experience of this material during the past three or four months, it may be interesting to relate the general impression I have gained of its value. I have merely applied the material itself to wounded surfaces, and not in muslin bags nor impregnated with antiseptics, as mentioned in THE LANCET, Nov. 24th, 1883, p. 908. As a dressing for recent wounds, it is easily applied, is painless and comfortable, and will be found by no means an unimportant styptic. For granulating wounds, its absorbent and antiseptic properties procure a cleanly healthy surface, and appear to promote cicatrisation. For instance, in a case of amputation of the leg where, owing to putrefaction, the Listerian dressings had to be discontinued, the stump was surrounded with a quantity of the wood-wool, and the discharge was readily absorbed and sweetened, whilst the granulations assumed a healthy character. I believe that this material will be found very serviceable in the casualty department of large hospitals, owing to the facility with which it can be applied; whilst from a financial point of view it will be found far more economical than even lint dressing.

The sample I have been using was procured for me at my request by Messrs. Krohne and Sesemann.

I am, Sir, yours faithfully,

Carlisle, April 14th, 1884. H. A. LEDIARD.

VOLUNTEER AMBULANCE MOVEMENT.

To the Editor of THE LANCET.

SIR,—May I add another to the list of hospitals taking part in the Volunteer Ambulance movement, mentioned by Mr. Collingwood in his letter on the subject in your issue of the 5th inst.? A very crowded general meeting was held at St. Thomas's Hospital to consider the subject in January last, with the result that an ambulance association was formed, under the presidency of Sir William Mac Cormac, chief surgeon to the National Aid Society, and a bearer company organised, which at present numbers more than 100 non-commissioned officers and men. The company has been drilling steadily two and three times a week since the beginning of February last, and though we have been rather late in taking the matter up, we hope to arrive at a fair state of efficiency during the present year.

I am, Sir, your obedient servant,

E. CARRICK FEEEMAN,
Secretary to the Ambulance Association.

St. Thomas's Hospital, April 10th.

NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

SANITATION AT SUNDERLAND.

A MEETING has been held lately at Sunderland, at which the Mayor took the chair, to promote the erection of a hospital for the treatment of infectious diseases in the town, the present building having been condemned as inadequate by the public voice and medical opinion. The Mayor made a very sensible and telling speech, in which he admitted the want of hospital accommodation; and although a site had been mentioned near some land of his own, which would certainly not enhance the value of his property should the proposal be carried out, yet he said he would, on the larger ground of philanthropy, be sorry as a landlord to throw any obstacles in its way. I fear that the medical speakers were scarcely so practical as the Mayor. One gentleman would have a series of pavilions, taking Glasgow and other great centres as his type; another would have small hospitals, if not on wheels, at least "on turntables," by which perfect ventilation might be secured, for the hospital could be turned round to face every change in the wind—and in Sunderland, of all places, the changes in the wind are a matter of constant remark. A hospital is certainly required; and it is a pity the medical speakers did not give all the force of their remarks to this point, leaving details of construction for future consideration, in which they would be certain to be consulted.

HEALTH LECTURES.

Health lectures have been delivered lately, at Sunderland, by Dr. Monro, medical officer of health for South Shields, Dr. Drinkwater, Dr. Gibson of Newcastle, and others. So that if the town is not the most healthy, it is certainly one of the "best lectured" boroughs of our time.

THE OUTBREAK OF SMALL-POX AT NEWCASTLE INFIRMARY.

The outbreak to which I referred in a late letter has now subsided, and there have been no fresh cases; the students who were attacked are doing well, and may be said to be convalescent.

NEWCASTLE AND THE EDINBURGH TERCENTENARY.

A good many of our *confrères* may be said to be, if not exactly "on the wing," at least "congregating" before taking flight to the "Northern Athens." Newcastle, although so far north, has its advantages as a point of departure to many places of interest: for instance, three hours and a half will suffice to convey one to the Waverley Station; a little longer will enable one to reach the Cumberland lakes; and the short route to Ireland, *viâ* Stranraer to Belfast, may be commenced here, as also the route to Denmark and Norway. I hope in a future letter to give some hints which may be useful in guiding such of your readers who may contemplate a visit to Copenhagen, but these may stand over until my return from Edinburgh.

Newcastle-on-Tyne, April 15th, 1884.

GLASGOW.

(From our own Correspondent.)

UNIVERSITY CHANGES.

THE authorities of the Glasgow University propose making certain important alterations in their examination scheme for medical degrees. They intend to remove pathology from the third to the fourth examination, and, to make room for it by removing therapeutics entirely from the examination as a separately named subject. This cannot but be regarded as a retrograde step. Some years ago the university very judiciously separated materia medica and pharmacy from therapeutics proper, giving a separate examination in these two departments. The candidate was thus enabled to give his attention at the proper time to the more important of these divisions, the physiological and therapeutical action of drugs, with his mind undistracted by botanical and pharmaceutical details. The proposed action of the university simply recalls the old and objectionable order of things, in which everything referring to materia medica, pharmacy, and the physiological and therapeutical action of drugs is jumbled up in one examination.

The University of Edinburgh is also desirous of making certain alterations in the curriculum, especially with reference to practical courses, which it demands of candidates for its medical degrees. With regard to practical pharmacy, if this is taken extra-murally, it must be "conducted at the laboratory of a hospital or dispensary, or elsewhere, by a teacher recognised by the University Court," or the candidate must have been "engaged by apprenticeship for not less than two years with a registered medical practitioner, a member of the Pharmaceutical Society of Great Britain, or a member of the Pharmaceutical Society of Ireland, or a pharmaceutical chemist, or chemist and druggist, registered under the provisions of the Act for regulating the Qualifications of Pharmaceutical Chemists, 1852, the Pharmacy Act, 1868, or the Pharmacy Act (Ireland), 1875, in the *bonâ fide* compounding and dispensing of drugs, and the preparation of their official and other preparations under his superintendence." With regard to physiology and midwifery, the following additions or alterations are proposed:—"A candidate must show that he has attended for at least three months the practice of a midwifery hospital, or that he has attended at least six cases of labour under the superintendence of a registered medical practitioner. That he has attended, during courses of not less than fifty hours' instruction, classes of practical physiology and practical pathology in the University of Edinburgh, or in a university or school of medicine recognised by Sub-sections 2 and 4 of Section VI. of Ordinance No. 8, *Edinburgh* No. 3, or upon classes thereof [conducted by a

teacher recognised by the University Court under the said Sub-section 4."

THE FACULTY OF PHYSICIANS AND SURGEONS.

The Faculty continues to advance rapidly (at rather a break-neck pace many are inclined to think) in the path of reform. Some time ago it agreed to a scheme of conjoint examination with the other Scotch Corporations, of such a nature that successful candidates may rejoice in the right to append about nineteen initial letters to their names. It has instituted a scheme of examination for its Fellowship, but has not yet determined the date at which this desirable change shall take effect. Not satisfied with this, the more ardent spirits are promoting a movement which will reform the Faculty out of existence altogether. They aim at the union of the Faculty with the Royal College of Surgeons of Edinburgh to form the Royal College of Surgeons of Scotland, hoping thereby to found a national institution, not a local one, which shall prove a sufficient counterpoise to the College of Surgeons of England. The title would prove more attractive than those in use at present to those proposing to enter the profession; and probably a national college would wield more political power and command more votes in Parliament than the two separately can do, as they could appeal to other than the members for Edinburgh and Glasgow for support. A committee has been appointed to confer with an Edinburgh committee on the subject.

THE ROYAL INFIRMARY.

Things have not been going smoothly at the Glasgow Royal Infirmary for a long time. In all the differences and difficulties which arise in connexion with its management, nothing is more remarkable than the utter powerlessness of the staff and of the medical directors, even when the matters under discussion are of a purely professional kind. In the chloroform controversy of last year the chairman of the board of managers, supported *en masse* by the lay directors, practically carried all before him, notwithstanding the unanimous and active opposition of the physicians and surgeons of the institution. More recently it has been shown that the power of the lay directors and their hostility to professional opinion have not diminished in the interval. It has been known for some time that it was intended to reduce the number of physicians and increase the number of surgeons on the hospital staff. These changes, surely of a kind with regard to which the voice of the staff should have been heard to some purpose, have also been carried in the teeth of the most strenuous opposition of those interested professionally, and on grounds which have been unanswerably shown to be perfectly insufficient. It is unfortunate that any move or protest made by the staff or their friends on the directorate, when strictly medical interests are at stake, should be at once met by the old cry of "trades unionism" from the lay directors. So long as such feelings exist between professional and non-professional managers of the infirmary, nothing can be looked for but friction.

DEATH OF DR. CASSELLS.

Dr. J. Patterson Cassells, well known as an aural surgeon, died a few days ago, at the comparatively early age of forty-eight. Dr. Cassells was a surgeon of great energy and ability, and did much to establish his specialty on a firm basis in Glasgow. He originated, and, for some time years, entirely supported the Dispensary for Ear Diseases; and it was mainly through his exertions and influence that the present Hospital for Ear Diseases was erected. Dr. Cassells was the author of many important papers on aural affections.

RICKETS.

A paper was recently read before the Philosophical Society of Glasgow, by Mr. James Thomson, on Rickets in Glasgow and the West of Scotland, and its relation to the food and water used. There can be no doubt as to the very great prevalence of this disease in our midst. Mr. Thomson attributes it to deficiency of lime in the Loch Katrine waters, this deficiency telling not only directly on bone formation, but also indirectly, in permitting the water to take up more lead from leaden pipes than harder water would take up; to the excessive use of tea, sugar, and white flour bread, to the exclusion of oatmeal and such bone-forming foods; and to early weaning and an impure atmosphere: factors which beyond a doubt are all present in a greater or lesser degree.

There are many in the profession who will be pleased to learn that Prof. M. Charteris has quite recovered from his recent prolonged illness, and has returned to duty at Glasgow University.

PARIS.

(From our Paris Correspondent.)

BANQUET OF THE SOCIÉTÉ FRANCAISE D'HYGIÈNE.

THE annual banquet of the Société Française d'Hygiène took place on the 5th inst., and was well attended. M. Marié Davy, the Director of the Meteorological Observatory of Paris, presided, and opposite to him at table was the celebrated M. de Lesseps. I may mention that this Society, which was founded only a few years ago by Dr. de Pietra Santa, one of the physicians to the late Emperor, has grown rapidly in numbers and importance, and is in every sense of a cosmopolitan character, not only as regards nationalities and creeds, but as comprising men of all professions—doctors, lawyers, engineers, architects, journalists, chemists, &c.; in short, the Society admits all those who can by their knowledge and skill contribute to the development of hygiene. Thus the Society bears on its list the names of many distinguished hygienists of Great Britain and Germany. The toasts of the evening were all most interesting, but I cannot do more than allude to them here. I may, however, cite certain passages of the principal speakers. M. Marié Davy spoke of the influence of atmospheric changes on the public health, and of the part played by the air in the production of disease. Dr. Durand-Fardel, one of the physicians of Vichy, and the highest French authority on mineral waters, pointed out the importance of a thorough knowledge of hygiene in all its bearings. He said that hygiene embraced all the sciences; there was not a single science that could not be called into requisition for its development. He considered it the most important branch of medicine, and yet, strange to say, it was only within the last twenty years or thereabouts that it had been recognised as a regular science. M. Durand-Claye, an engineer of some note, referred to the intimate connexion that existed between engineering and hygiene, and said that, without wishing to encroach on the precincts of medicine properly so called, he considered that pure air, sunlight, and uncontaminated water, and these in abundance, were as essential to the well-being of animals as they were to the vegetable world. M. Anatole de la Forge, a deputy, demonstrated how the science of hygiene was being extended to all parts of the world by the introduction of Western civilisation, and referred to M. de Lesseps as being one of the foremost pioneers in that respect. M. de Lesseps, with his usual good humour, related some amusing anecdotes of his travels; and, in speaking of the Egyptians, said that from his experience he thought they were the most interesting, and yet the most ill-treated, people on the face of the globe. From time immemorial they seemed to have been a prey to the ambitious proclivities of surrounding nations. In their struggle with other people, acting almost always in self-defence, they have invariably been conquered and oppressed, but could never be subjugated by or amalgamated with their various conquerors, who, owing to climatic influences, could not live in the country for any length of time. They—that is, the pure Egyptians or fellaheen who inhabit the valley of the Nile—are to this day as distinct and isolated a people as they were in the time of the Pharaohs. They are inimical to admixture with other races, whether of a social, political, or physical kind; and if perchance there be any mixture of blood, the offspring never survive beyond one or two generations at the most. The climate is very unhealthy, and the country almost uninhabitable; and this circumstance alone ought to make intending conquerors reflect before they decide upon permanently occupying it.

The Minister of Public Instruction has intimated to the Academy of Medicine that he will be officially represented by Prof. Trélat at the International Congress of Medical Sciences, which is to be held at Copenhagen on the 16th of August next.

The Academy of Medicine of Paris has designated M. Henri Guéneau de Mussy to represent it at the Centenary of the University of Edinburgh.

Paris, April 8th, 1884.

A COMMISSION has been appointed by the New York State Assembly for the purpose of investigating and reporting upon the condition of the dwellings of the poorest parts of the city.

Obituary.

WILLIAM TAYLOR, M.R.C.S., J.P.

PERHAPS many of our readers will have seen the announcement a short time ago of the death of William Taylor, of Scarborough, who died on March 18th, aged sixty-six, at his residence, Montpelier-terrace, after a long and painful illness, from carcinoma of the rectum.

Commencing practice at Scarborough at the time when this watering-place had been brought, comparatively speaking, within easy reach of the English public by the opening of the York and Scarborough Railway, Mr. Taylor, who lived to see it become from a second-rate English seaport and health-resort one of the first of English watering-places, had, by lending his assistance and wise counsel in the development of many and various undertakings having for their object the benefit of the place, placed his fellow-townsmen under an obligation, which they cheerfully recognise.

Mr. Taylor was a faithful and hard-working member of a profession to which he was always devoted, fulfilling its many duties and demands, not on account of the income resulting, but with the higher object of doing good. The deceased gentleman was educated at St. Bees and at Shrewsbury. Having completed his studies at the latter place, he was apprenticed at Scarborough to Messrs. Harland and Easton, with whom in after years he again became associated, ultimately joining the firm as partner. After the termination of his apprenticeship he went to University College, where in due succession he held the appointments of house-surgeon under Liston, physician's assistant to the late Dr. Taylor, and obstetric assistant to the late Dr. Murphy. He was also a fellow-student of Mr. Erichsen, Mr. John Marshall, Mr. George Heath, Dr. Quain, and the late Dr. John Hall Davis, who survived him only one day. By these distinguished men Mr. Taylor was well remembered and appreciated. He afterwards availed himself of the opportunity of acquiring further professional knowledge in Paris, where he worked under Nélaton; and, finally, having had opportunities possessed by few, he commenced practice in Scarborough in the year 1845. It is not surprising that with such credentials Mr. Taylor should have been soon recognised as an able surgeon, and that the confidence reposed in him from the first should lead to his appointment as surgeon to the dispensary (of which he was one of the principal founders), when that institution was established, and the members of whose board a short time since, on his retirement as senior surgeon, presented him with a testimonial in recognition of his long and highly valued services, at the same time placing his name on the list of consulting surgeons to the institution. Amongst other posts held by him were those of surgeon to the Scarborough Sea-bathing Infirmary, surgeon to the Borough Gaol, and surgeon to the Scarborough Artillery Volunteers and to the East Yorkshire Artillery Militia. He was also a justice of the peace for the borough.

It will, however, be principally by patients and by his medical brethren that Mr. Taylor will be best remembered; by the former as a faithful friend and skilful practitioner, and by the latter as one always ready to advise and to help unostentatiously a brother practitioner; in fact, to use the words which have recently been recorded by his local biographer, it may be said that "candid, yet courteous to all, he has been respected through life by all who knew him, patients and friends, in every class of the community."

Mr. Taylor's remains were interred in the Scarborough Cemetery on the 21st of March, amid such demonstrations of respect and affection by friends and public officers as are rarely witnessed.

JEAN BAPTISTE DUMAS.

THIS illustrious chemist died on the night of Thursday last, at Cannes, whither he had gone for the restoration of his health, which had been in a declining state for some time.

Jean Baptiste Dumas was born at Alais, near Nimes, on July 14th, 1800. He began his studies as a pharmaceutical chemist, and at the age of eighteen or nineteen went to Geneva, where he was brought to the notice of De Candolle, the celebrated botanist, and Pierre Prévost, the well-known literary writer and philosopher, who interested themselves on his behalf. M. Dumas went to Paris in 1821 with letters of introduction to some of the leading chemists of that city, one of which was addressed to Baron Thénard, the eminent chemist, who took the young *savant* under his patronage. In 1832, owing to his numerous memoirs and his growing reputation as a chemist, he was elected member of the Academy of Sciences. He was also a member of the Académie Française, where he occupied the seat of M. Guizot, the well-known statesman. From 1830 to 1849 M. Dumas was in the zenith of his glory. He was during that period Professor of Chemistry at the Faculty of Sciences, the Faculty of Medicine, and the College of France, where he had ample opportunity for making the discoveries which rendered him famous. He was fully imbued with the principles of the great Lavoisier, and his discoveries were at least equal to those of that eminent chemist. M. Dumas was a member of the Academy of Medicine, permanent secretary of the Academy of Sciences, and was invested with the grand cross of the Legion of Honour. In 1869 he was awarded a gold medal by the Chemical Society of London for the great service he had rendered to science and industry. His remains were taken to Paris for interment, and at the weekly meeting of the Academy of Sciences on April 14th the proceedings were suspended.

THE SERVICES.

ARMY MEDICAL DEPARTMENT.—Deputy Surgeon-General James Ekin, M.B., C.B., is granted retired pay, with the honorary rank of Surgeon-General.—The undermentioned Surgeons to be Surgeons-Major: Richard William O'Donnell; William Donovan; Dugald Blair Brown; Richard Henry Quill, M.B.; Blennerhasset Montgomerie Blennerhasset; William Budd Slaughter; Andrew Lang Browne, M.D.; Christopher William Moor Keys, M.D.; Cecil Josiah Lambton Bushe, M.B.; Henry Haldane Stokes, M.B.

Surgeon-Major W. S. Hedley has been taken on the strength of the British Army of Occupation in Egypt, and has been appointed Sanitary Officer for the Cairo district.

ADMIRALTY.—Staff Surgeon W. H. Stewart has been appointed to the *President*, for temporary service at the Royal Victoria Yard.

YEOMANRY CAVALRY (1st West York).—Surgeon Lawrence Kiernan resigns his commission, also is granted the honorary rank of Surgeon-Major, and is permitted to continue to wear the uniform of the regiment on his retirement; Frederick Royston Fairbank, Gent., M.D., to be Surgeon.

ARTILLERY VOLUNTEERS.—1st Norfolk: Thomas Joseph Compton, Gent., to be Acting Surgeon.

ENGINEER VOLUNTEERS.—1st Gloucestershire: Martin Luther Brown, Gent., M.B., to be Acting Surgeon.

RIFLE VOLUNTEERS.—5th Devonshire: Surgeon Henry S. Gaye, M.D., and Acting Surgeon James Adams, M.D., resign their appointments.—1st Isle of Wight: Surgeon Channing Neill, M.D., resigns his commission.—13th Middlesex: William Hugh Fenton-Jones, Gent., M.D., to be Acting Surgeon.—2nd Volunteer Battalion, the Royal Warwickshire Regiment: Surgeon and Honorary Surgeon-Major John Tibbits, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the battalion on his retirement.

THE HIND FUND.

THE following additional subscriptions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank:—

Baylie, W., Esq.	£0 10 0
Bell, Royes, Esq.	1 1 0
Crawford, Dr. Cooper	1 1 0
Coffin, R. Maitland, Esq.	1 1 0
Deane, John, Esq.	1 1 0
Gandar, T. F., Esq.	1 0 0
Godson, Dr. Clement	2 2 0
Jeyn, W., Esq.	0 5 0
Read, T. Lawrence, Esq.	1 1 0
Strong, Dr. Henry J.	1 1 0

The fund is now closed.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on the 9th, 10th, 15th, and 16th inst.:—

R. H. W. Wilbe, W. H. R. Rivers, K. W. J. Mackenzie, G. L. Turnbull, B. W. Quartley-Papafio, W. H. Hamer, C. J. Davenport, and H. J. Tylden, St. Bartholomew's Hospital; George Barlow, Owens College; Charles Scatchard, Leeds; Edward Buckell, S. E. Holder, C. W. Jecks, S. P. Hosegood, F. G. S. G. Martin, H. P. Dean, C. P. O'Connor, and Julius Hamel, University College; R. H. Penton, E. J. A. Haynes, T. N. Thomas, G. C. Wright, H. M. Doyle, C. F. Wright, William Parker, A. B. Roxburgh, James Godding, A. E. Richardson, and A. J. Gedge, London Hospital; W. F. Clarke, H. W. Drew, C. F. Routh, and Theodore Fisher, Guy's Hospital; J. C. Rossall and J. J. Clarke, St. Mary's Hospital; G. de Veulle Belson, Leonard Remfry, H. R. Davies, Hugh Lawson, and Henry Goodale, St. George's Hospital; S. W. Wheaton, W. F. Ward, C. O. Parsons, J. T. Calvert, H. P. Helsham, J. T. Thomas, and L. A. Bidwell, St. Thomas's Hospital; William Goos, W. J. Colborne, Edward Edwards, and W. R. Acland, Charing-cross Hospital; G. H. O'Reilly, King's College; W. A. Furmston, H. L. Williams, W. R. Clay, and H. C. Bartlett, Middlesex Hospital; H. C. L. Scofield, Edinburgh and St. Bartholomew's Hospital; W. H. B. Moore, Madras and King's College; H. B. Brackenbury, Westminster Hospital; C. W. Fenton, A. F. Richards, H. J. Hawthorn, H. G. Lys, and L. C. E. Calthorp, London Hospital; F. W. Green and F. W. Andrews, St. Bartholomew's Hospital; J. O. Tunstall, and F. S. Toogood, University College; J. H. Tonking, C. T. Quiller, E. C. Stabb, and H. J. Smyth, St. Thomas's Hospital; G. C. Jones, T. W. Gibbard, and A. E. Hensley, King's College; C. W. Hogarth, Guy's Hospital; H. S. Cooper, Westminster Hospital; H. E. Mann, St. George's Hospital.

Nearly 250 candidates have entered their names for the final examination for the diploma of membership of the College.

UNIVERSITY OF ABERDEEN.—At the late medical graduation term the following candidates, after the usual examinations, received the degree of M.D.:—

Brand, Alexander Theodore, M.B., C.M., Driffield, Yorkshire.
Brown, William Carnegie, M.B., C.M., Penang.
Findlater, Sylvester Williamson, M.B., C.M., Dufftown.
Jones, Timothy Siddall, M.B., C.M., Swansea.
Millar, James, M.B., C.M., Arbroath.
Moir, John Hay, M.B., C.M., Burton-on-Trent.
Tuckey, Charles Lloyd, M.B., C.M., London.
Walker, James Hutchison, M.A., M.B., C.M., North Borneo.

The following candidates received the degrees of M.B. and C.M.:—

Adamson, Henry M'Kenzie, Morphie, Montrose.
*Allden, George Henry, Southampton.
Anderson, John Hector, Aberdeen.
Anderson, Joseph, Preston.
Barrett, Albert Henry, Wallingford, Berks.
Battiscombe, Christopher George, Blackheath.
Bennet, Francis Alexander, M.A., Cullen.
*Clark, William Ronaldson, M.A., Edinburgh.
Cook, James Will, Allness.
Cowie, Alexander Mitchell, Mortlach.
Craig, James Forsyth, M.A., Leslie, Insch.
Currie, George Burnett, M.A., Aberdeen.
Dalton, Henry Moger Cyril, Newcastle, New South Wales.
Duffus, George, Cullen.
Elmslie, Walter Angus, Resthwet, Chapel of Garioch.
Faulkner, Charles Albert, Rajahmundry.
Fehrsen, John Andrew, Graaf Reinet, South Africa.
Forster, William Revely, Blyth, Northumberland.
*Gordon, John, Keith.
Graham, Thomas Bell, Ecclefechan.
Grant, Andrew, Balmoral.
Harrison, John William, Sandwich, Kent.
Lyall, Charles Robert, Aberdeen.
Macdonald, Stuart, Elgin.
Mackintosh, Frank Innes, M.A., Deskford, Cullen.
Maclean, Alexander, F.R.C.S.Ed., Thurso, Caithness.
Milne, George, Methlic.
Mitchell, James, Aberdeen.
Munro, James Mitchell, Inverurie.
Murchison, Alexander, Lochcarron.
Poonen, Eapen, B.A., India.
Pressle, Robert Dowell, Aberdeen.
*Roberts, Alfred Ernest, London.
Robertson, William, M.A., Rathen.
Ruxton, William Ledingham, West Riding Asylum, Wakefield.
Savege, James, Montrose.
Sutherland, William Leith Ireland, Aberdeen.
Thiele, Herman, Bermuda.
Walker, Leslie Fyfe, Aberdeen.
Webb, John Eustace, Windsor.
*Will, James, Ellon.
Windle, John Thomas, Burnley.

* Received their degrees, with honourable distinction.

The John Murray Medal and Scholarship was awarded to Arthur Greatorex Smith.

At the same time, the following candidate was certified as having passed all the examinations, but did not graduate:—Arthur Stephen Inglis.

APOTHECARIES' HALL.—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on April 10th:—

M'Carthy, Philip Augustine, Victoria-road, Battersea-park.
Russell, Robert Hamilton, King's College Hospital.
Vernon, Fredk. William, Manor-house, Poplar.

At the Preliminary Examination in Arts, held at the Hall on April 3rd, 4th, and 5th, the following candidates received certificates of proficiency in General Education:—

SECOND DIVISION.	SECOND DIVISION.
Arnold, John Cressy.	*Hawes, Godfrey C. Browne.
Barber, Sidney Fredk.	Hosking, John Edwd. Francis.
Breese, Frederick.	Huntley, Edgar.
*Clarke, Harry Ward.	Mawdsley, Wm. Henry.
Cornell, Edward Matthew.	Nuthall, Robt. L. Scratchley.
Dallas, Stuart Alex. Charles.	Parham, Hetman Chas. Harris.
Drummond, Malcolm.	Pollard, Alfred.
*Eardley-Wilmot, Chas. Chester.	Robinson, Harry.
*Eden, Thomas Watts.	Robson, Harry Nesbit.
English, Thos. Harks.	*Sharpin, Archdale Lloyd.
Freeland, Arthur R. Stillwell.	Smith, Sydney.
Gane, Edwd. Palmer Steward.	*Stabb, Arthur Francis.
George, Alfred Walter.	Terry, John.
Greene, Arnold James.	Truman, Claude A.
*Hague, William.	Wilkinson, Edmund.
Hamilton, Jas. Austin.	Williams, Chas. Edward.
Harrison, Beatrice Mary.	

The following passed in Elementary Mechanics alone:

Morley, Chas. Reginald. | Rowley, Samuel Ashley.

* Passed also in Elementary Mechanics.

BUILDING operations at the new Burnley and District Hospital were commenced on the 31st ult., and it is expected that the whole building will be completely covered in before winter.

THE arrangements for the removal of the Anthropological Institute of Great Britain and Ireland are now completed, and the first meeting in the new rooms, at 3, Hanover-square, will be held on the 22nd inst.

A FAMILY of five persons residing at Moira, a village about six miles distant from Burton-on-Trent, has been poisoned by eating cow's liver which was either affected with disease or in an advanced state of putrefaction. One death has occurred.

DEATH FROM THE BITE OF A CAT.—At St. Bartholomew's Hospital, on the 3rd inst., a death occurred from hydrophobia resulting from the bite of a cat. The injury was inflicted nine weeks ago, and the symptoms of the disease were very marked. The cat died soon after inflicting the injury.

ON the 2nd inst., a charge against the Richmond Select Vestry for allowing a nuisance to exist at the rear of the plaintiff's premises, such nuisance being injurious to health, was dismissed on the ground that no notice had been served on the vestry, which was a condition precedent to the issue of a summons.

ANOTHER ACCIDENT IN THE FOOTBALL FIELD.—Shortly after the commencement of a game of football, under Association rules, on the 12th inst., at Blackpool, one of the players received a kick which fractured his left leg. A medical man who was in attendance set the limb, and the youth was carried to his home on a stretcher by the local corps connected with the St. John Ambulance Association.

PRESENTATONS.—Dr. Knapton, hon. physician to St. Mary's Cottage Hospital Northam, Southampton, was on the 8th inst. presented by his patients attending that institution with a handsome silver coffee urn.—Dr. H. Bury was on the 9th inst. presented by the inhabitants of Totteridge with a purse containing forty guineas, in appreciation of his zeal and devotion in his attendance upon the poor of the parish during the prevalence of a recent epidemic of diphtheria.

ST. JOHN AMBULANCE ASSOCIATION.—With the concurrence of the principal medical officer to the Devonport Garrison, classes for the troops have recently been held in connexion with this Association, which have been attended by officers, non-commissioned officers, and men of all ranks. Surgeon W. B. Allin, M.B., A.M.D., acted as lecturer, and Surgeon-Major Alex. Turner, A.M.D., as examiner. The latter has forwarded to St. John's Gate a most eulogistic report on the excellence of the knowledge displayed. The whole of the candidates for examination, which took place in the presence of the principal medical

officer, are recommended for certificates. At Scotland-yard, on April 10th, Lady Mac Cormac presented the certificates of the Association to about one hundred police constables who had attended classes. Sir W. Mac Cormac expressed his sympathy with the work of the Association, which he considered to be exceedingly useful.

SOCIETY FOR THE STUDY AND CURE OF INEBRIETY.—An inaugural address will be delivered by the President of this Society, Dr. Norman Kerr, on Friday, April 25th, at 3.30 P.M., in the rooms of the Medical Society of London, Chandos-street, Cavendish-square.

LONDON TEMPERANCE HOSPITAL.—The Duke of Westminster, K.G., has consented to lay the foundation stone of the new wing of this hospital, which will front Hampstead-road. This block of buildings will complete the original plan of the hospital, and will afford accommodation for at least 52 additional in-patients, raising the full number of beds to 104.

THE GARFIELD MEMORIAL HOSPITAL.—The medical staff of this hospital at Washington is constituted as follows:—Consulting Surgeons: Drs. Fred. May and N. S. Lincoln. Consulting Physicians: Drs. W. W. Johnston, J. Taber Johnson, and A. Y. P. Garnett. Attending Surgeons: Drs. C. E. Hagner and J. H. W. Lovejoy. Ophthalmologist and Otologist: Dr. Swan M. Burnett. The Board of Directors hopes to be able to open the hospital in May.

LEDWICH SCHOOL OF MEDICINE, DUBLIN.—The following have been awarded prizes at the termination of the winter session:—Practice of Medicine: John Donaldson, 1st; A. Digges La Touche, 2nd. Surgery: G. Woods, 1st; H. Morrison, 2nd. Senior Anatomy: Shirley Roberts, 1st; J. W. Patrick, 2nd. Junior Anatomy: R. J. Hewitt and T. O. Williams, equal. Physiology: H. Morrison, 1st; Shirley Roberts, 2nd. Chemistry: Henry Breen, 1st; T. S. Silles and Thomas Browning, equal. Midwifery: John Donaldson, 1st; W. E. Lambert, 2nd.

METROPOLITAN ASYLUMS BOARD HOSPITALS.—The Metropolitan Asylums Board has forwarded circular communications to the various local bodies of the metropolis informing them that in future the Board's hospital at Hampstead will be known as the North-Western Hospital, that at Fulham as the Western, that at Stockwell as the South-Western, that at Deptford as the South-Eastern, that at Homerton as the Eastern, and that the proposed hospital at Winchmore-hill will be known as the Northern Hospital.

ROYAL INSTITUTION.—The following are the arrangements for the lectures after Easter: Two lectures by Dr. Klein on the Anatomy of Nerve and Muscle, on Tuesdays, April 22nd and 29th; five lectures by Professor Gamgee on the Physiology of Nerve and Muscle, on Tuesdays, May 6th to June 3rd; seven lectures by Professor Dewar on Flame and Oxidation, on Thursdays, April 24th to June 5th; three lectures by Mr. Hodder M. Westropp on Recent Discoveries in Roman Archæology, on Saturdays, April 26th to May 10th; and four lectures by Professor T. G. Bonney on the Bearing of Microscopical Research upon some large Geological Problems, on Saturdays, May 17th to June 7th. The Friday evening meetings begin on April 25th, when Mr. Walter Besant will give a discourse on the Art of Fiction.

THE NOTTINGHAM SCHOOL BOARD AND OVER-PRESSURE.—At the meeting of the Nottingham School Board on Monday week, Mr. Mellers proposed a resolution to the following effect: "That having regard to the complaints of educational over-pressure induced by the present code, and the encouragement to exclude dull and backward scholars from public elementary schools by the participation of teachers in the Government grants, this board deems it advisable, and hereby resolves, to make all future arrangements with teachers at a fixed salary, without any share in the grants." Mr. Mellers said that the Nottingham and District Certificated Teachers' Association had unanimously carried a resolution declaring its conviction that the present educational code causes great over-pressure on both teachers and scholars. The Rev. J. D. Lewis seconded the motion, which was, however, eventually lost by a majority of one vote.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ASHER, MORRIS, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Government Medical Officer and Public Vaccinator for the District of Hartley, New South Wales.

ASHMEAD, GEORGE, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Kingswinford No. 4 District of the Stourbridge Union.

DONALD, ARCHIBALD, M.B., C.M.Ed., M.R.C.S., has been appointed House-Surgeon to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

DRUITT, LIONEL, M.D., C.M.Ed., L.R.C.P.Ed., has been appointed Medical Officer for the South Lambeth District.

FRASER, THOMAS A., M.B., C.M.Ed., M.R.C.S., has been appointed House-Surgeon to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

HUNT, GEORGE ANGUS, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the South Hornsey District.

LLOYD, RICKARD W., L.R.C.P.Ed., M.R.C.S., has been appointed an Administrator of Anæsthetics to the West London Hospital.

MACDONALD, DONALD STUART, M.B., C.M.Ed., has been appointed Resident Surgeon to Port Curtis and Leichhardt District Hospital, Rockhampton, Queensland.

MCLAUCHLAN, THOMAS GEORGE, M.B., C.M.Ed., has been appointed Medical Officer and Public Vaccinator to the Hales Owen District of the Stourbridge Union.

RYDER, RICHARD, M.D., L.R.C.P.E., &c., has been appointed Certifying Surgeon under the Factory Act for the Nailsworth District, Gloucestershire.

SMITH, S. J., M.D., has been appointed Surgeon to the Police Force at Bilston, vice H. D. Best, deceased.

TAYLOR, ROGERS W. G., B.A., M.B., M.Ch. Trin. Coll. Dub., and L.M.K.Q.C.P.I., has been appointed Medical Officer of Health and Public Vaccinator to the Fransham District of the Mitford and Launditch Union, Norfolk, vice S. H. Wheatcroft, M.R.C.S., resigned.

WESTBY, GEORGE, M.K.Q.C.P.I., L.R.C.S.I., has been appointed Honorary Assistant-Surgeon to the Liverpool Hospital for Cancer and Skin Diseases.

Births, Marriages, and Deaths.

BIRTHS.

ENGLISH.—On the 11th inst., at Fulham-road, S.W., the wife of T. Johnston English, M.B., of a daughter.

FIRTH.—On the 13th inst., at Parrock-street, Gravesend, the wife of Charles Firth, M.D., of a son.

HUTCHINSON.—On the 8th inst., at Albion Villas, Scarborough, the wife of C. F. Hutchinson, M.D., of a son.

MCCALLUM.—On the 14th inst., at Elm Lodge, Anstruther, Fife, the wife of Colin McCallum, M.B. & C.M.Ed., of a daughter.

MOORE.—On the 20th ult., at Langley, St. Andrew, Jamaica, the wife of York T. G. Moore, L.R.C.P.Ed., M.R.C.S., of a daughter.

NAPIER.—On the 6th inst., at 3, Royal-terrace, Crosshill, Glasgow, the wife of Alex. Napier, M.D., of a son.

NEWTON.—On the 10th inst., at King-square, E.C., the wife of William Thomas Newton, M.R.C.S.Eng. &c., of a son.

MARRIAGES.

BOSWELL—HORNE.—On the 12th inst., at St. George's, Bloomsbury, John Irvine Boswell, M.R.C.S., L.R.C.P., of Faversham, Kent, second son of the late John Alexander Corrie Boswell, of H.M. Indian Civil Service, to Ellen Elizabeth (Daisy), only daughter of Edgar Horne, of Russell-square, W.C.

EVANS—HUGHES.—On the 9th inst., at Capel Mawr, Denbigh, by Mr. Gee (uncle of the bride), Mr. W. R. Evans (brother of the bridegroom), and Mr. Harrison Jones, E. D. Evans, M.R.C.S., of 27, Regent-street, Wrexham, to Nellie, second daughter of the late Mr. Hughes, of Plas Chambres, Denbigh.

HOETS—GRACE.—On the 15th Feb., at Sydney, New South Wales, Alton Kingsley Hoets, M.R.C.S., to Ellen, elder daughter of the late William Grace, of Mogador, Morocco.

RAKE—CRAUFORD.—On the 20th ult., at the Cathedral, Port of Spain, by the Right Rev. the Bishop of Trinidad, Beavan Neave Rake, M.D.Lond., Government Medical Officer, Trinidad, eldest son of Thomas Beavan Rake, M.R.C.S., of Fordingbridge, Salisbury, to Margaret, elder daughter of the late Lieut. William Craufurd, of St. Kitts, West Indies.

DEATHS.

BOND.—On the 7th inst., at Teignmouth, South Devon, Harman Reed Bond, Surgeon-Major (retired), Bengal Army, in his 73rd year.

HENTSCH.—On the 12th inst., at the Dispensary House, St. George's-cross, Southwark, S.E., William Hentsch, Surgeon, Resident Medical Officer of the Royal South London Dispensary, aged 75.

JOSEPH.—On the 3rd inst., at Oaklands, Builth, South Wales, Thomas Morgan Joseph, M.R.C.S., L.R.C.P., late of Gladesville, near Sydney, Australia, in his 41st year.

UNSWORTH.—On the 16th Feb., at Beechworth, Australia, Francis Henry Unsworth, M.R.C.S.Eng., L.S.A.Lond., the beloved and lamented son of George and Fanny Unsworth, of Derby, aged 25.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, April 17th, 1884.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind	Dry Bulb	Wet Bulb	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Apl. 10	29·97	N.E.	46	42	85	54	40	..	Cloudy
,, 11	30·03	E.	44	42	77	51	41	..	Cloudy
,, 12	30·07	N.E.	46	43	63	52	42	..	Overcast
,, 13	30·05	N.E.	45	40	79	52	39	..	Cloudy
,, 14	30·07	N.E.	45	42	77	52	39	·03	Cloudy
,, 15	29·99	N.E.	45	42	63	52	40	·04	Cloudy
,, 16	29·87	N.E.	44	41	..	50	39	·01	Cloudy
,, 17	29·97	N.E.	45	40	..	48	39	..	Cloudy

Medical Diary for the ensuing Week.

Monday, April 21.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Whipham, "On Suppurative Disease of the Stomach."—Dr. Joseph Ewart (Brighton), "On the Treatment of Simple and Sloughing Dysentery by large doses of Ipecacuanha given morning and evening only."—8 P.M. Mr. J. Sampson Gamgee (Birmingham) will show a New Sponge, to abolish sponge infection.

Tuesday, April 22.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Dr. Klein, "On Nerve and Muscle."
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. The Marquis of Lorne will exhibit a Collection of Ethnological Objects from Canada.—Sir Richard Owen, "Note on a Portrait of an Aboriginal Tasmanian."—Professor A. H. Keane, "On the Ethnology of the Sudan."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. F. B. Jessett, "An Inquiry into the Cause of the Increase of Cancer in England and Wales."—Mr. C. Macnamara, "Epiphysitis."—Mr. F. J. Gant, "A Pelvic and Parietal Tumour of the Abdomen; Removal by Operation and Recovery."

Wednesday, April 23.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.—Skin Department: 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.
HUNTERIAN SOCIETY.—8 P.M. Dr. Hughlings-Jackson, "On a Case of Charcot's Joint-disease in Locomotor Ataxy."—Dr. Fletcher Beach, "On Atrophy of the Brain."
HOSPITALS ASSOCIATION.—8 P.M. Meeting at 11, Chandos-street, Cavendish-square.

Thursday, April 24.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.
ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On Flame, &c."

Friday, April 25.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. W. Besant, "On the Art of Fiction."
CLINICAL SOCIETY OF LONDON.—General Meeting (the agenda paper has not been completed).

Saturday, April 26.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. H. M. Westropp, "On Roman Archæology; the Colosseum.

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

INCREASE OF DEMENTIA IN FRANCE.

IN an interesting article upon this subject, which appears in the current issue of the *Revue Scientifique*, M. Legoyt states that between the years 1871 and 1880 the number of admissions to the public asylums rose by 55 per cent., while the increase of the population was only 4 per cent. The number of cures was only one in thirteen among the male patients, and one in sixteen of the female patients, while the deaths were one in six of the male and one in nine of the female patients. M. Legoyt says that of every thousand cases of insanity, 607 are due to physical causes, such as old age, want, alcoholic excesses, epilepsy, complaints peculiar to women, and other nervous affections, while the remaining 393 are classed by M. Legoyt as due to "moral causes," such as the loss of fortune, domestic trouble, disappointment in love, jealousy, disappointed ambition, and highly-strung religious sentiments. It may be remarked that the physical and moral causes of dementia are the same as those of suicide, and that, as in the case of suicide, women are much more subject than men to moral causes.

Students.—In the *Archives de Neurologie*, No. 18, MM. Charcot and Féré have published a report of five cases of locomotor ataxia in which trophic lesions of the foot were observed.

HAY RURAL SANITARY AUTHORITY.

To the Editor of THE LANCET.

SIR,—I beg to submit the following statement of facts to you. In 1874 I was appointed medical officer of health to the Hay Rural Sanitary Authority, and paid by fees, though I wished then, and for some years afterwards, to have a fixed proportionate salary, averaging with the neighbouring districts on the area and population I had to attend to. This the guardians refused, on the grounds that they wished to have the full control of the medical officer, and considered it would be more economical to pay by fees. Being too eager to keep down their expenses, and employing my services only in cases of the greatest urgency, no real work has been done for five years. The guardians now find there is a great deal required, and they must incur a great outlay if they employ me fully by fees. They wrote and asked me if I would continue the appointment at a salary of £10 10s. a year, as they found that was what the fees had averaged for ten years. On going into the matter I found the proper salary should be £120 to £140; so I declined their offer. Notwithstanding that our agreement was three months' notice on either side, the guardians have advertised in the local papers for a medical officer of health, at £10 10s. a year. Now, during the ten years I have held the appointment the Board admit that I have given the greatest satisfaction to themselves, the public, and the medical practitioners in the district. As I happen to be the senior practitioner in the district, I cannot consent to accept so paltry a salary, and shall do what I can to induce the younger practitioner to refuse it, for why should medical men always be working for nothing?—I am, Sir, yours faithfully,

Hereford, April, 1884. PETER GILES.

*** We think our correspondent is acting wisely and with self-respect in refusing so paltry a payment.—ED. L.

Captain de Carteret-Bisson.—The books were noticed in our last issue.

A. B. has not enclosed his card.

INCONTINENCE OF URINE.

To the Editor of THE LANCET.

SIR,—Will any of your readers be kind enough to suggest a line of treatment for a very obstinate case of nocturnal incontinence of urine in a young boy, in which most of the usual remedies have proved unavailing? I am, Sir, yours truly,

April, 1884. M.

A MEDICAL DIFFERENCE.

WITH the exception of some expressions in the letters on both sides, there is nothing in the difference between G. S. on the one hand and A. J. B. on the other which should not admit of friendly adjustment. G. S. is right in maintaining strongly the duty of a practitioner called into consultation with a fellow practitioner not to take charge of the case. This is not indeed an absolute rule, but it is one from which any departure would require severe justification. In regard to the case of Mrs. D., the statement of A. J. B. should be accepted—that but for an obstetric case detaining him longer than he expected, he would have met G. S. in consultation. Medical neighbours cannot always avoid being consulted in regard to each other's cases, and the only way is to do so with extreme reluctance and consideration for the feelings of brother practitioners. On the other hand, a strong feeling on the part of a patient has a right to be gratified.

Dr. W. H. Quinn might apply to the Secretary of the Homœopathic Hospital, London, which represents the only homœopathic school of Great Britain.

PRELIMINARY EXAMINATIONS.

To the Editor of THE LANCET.

SIR,—In your issue of April 5th, in the report of the General Medical Council, on March 27th, when the subject of mechanics having to be passed at the Preliminary Examination was discussed, the president (Sir Henry A. Pitman), in reply to a letter from the secretary of St. Thomas's Hospital Medical School, moved the reception of this report from the Preliminary Examinations Committee:—"That there was no evidence up to the present of students having passed in Mechanics in the Preliminary Examination, or that any of them have subsequently passed an examination in that subject." I beg leave to state that I, as well as others, after having registered and being in doubt on the subject, not getting satisfactory answers to our inquiries, and thinking we might be called upon to pass an examination in it at the Primary Examination of the College of Surgeons, determined to take it up, in case of accident, which we did in our first summer session, at great inconvenience and expense, having to pay the full examination fee of the College of Preceptors, and, on passing, the above college granted a special certificate for this subject alone.

I am, Sir, your obedient servant,

Bristol Medical School, April 12th, 1884. H. SEMPLE.

Mr. Rhen. Donaldson.—Churchills, or by order of any medical bookseller.

Mr. G. R. Turner.—The reports will be acceptable, if not too long.

POSTAL MICROSCOPICAL SOCIETY.

To the Editor of THE LANCET.

SIR,—The Postal Microscopical Society has, since its commencement, twelve years ago, up to the present time, put in circulation chiefly such slides and notes accompanying them as are adapted to general interest; special pathological and histological slides and notes have not hitherto been circulated continuously. It is now proposed to add a special medical branch, which all members of the profession whose names appear in the Medical Directory are invited to join. The entrance fee is 5s., and the annual subscription 10s., for which each member receives at about fortnightly intervals a box containing twelve slides, accompanied by a note-book; also one copy of the *Journal of Microscopy* quarterly. The medical slides and notes will be kept distinct from those of the Society in general, and form a separate circulation. Mr. Alfred Allen, 1, Cambridge-place, Bath, is the hon. sec., and will be happy to send a copy of the rules, and to give any further information.

I am, Sir, yours truly,

C. P. COOMBS, M.D. Lond.,
President, Postal Microscopical Society.

Castle Cary, April 12th, 1884.

Sanitary.—We see no objection to the use of sea-water for the purpose in the case of towns which drain into the sea.

POST-PARTUM HÆMORRHAGE.

To the Editor of THE LANCET.

SIR,—After the completion of the third stage of labour—namely, the removal of the placenta, I apply the binder, the woman lying on her left side, and in this position I allow her to remain an hour or two. Some practitioners I know fasten the binder, the patient lying on her back, and continuing so for some time. I should feel much obliged by any of your readers letting me know which of these two positions is considered the safer in view of post-partum hæmorrhage.

I am, Sir, yours truly,

April 14th, 1884. ANXIOUS.

HAY FEVER.

To the Editor of THE LANCET.

SIR,—Will any of your numerous readers kindly mention a seaside place within reach of London for children where some immunity from hay fever can be counted upon? Bracing air and freedom from vegetation seem to be what are required. If the experience is practical, it will be all the more welcome. I am, Sir, yours faithfully,

April, 1884. E. C.

TEETHING.

DR. K. DEHIO, of St. Petersburg, has reported in the *Jahrbuch für Kinderheilkunde* a series of observations made as to the disturbances of infantile health which occur during teething, and the physiological development during that period, as evinced by the progressive increase which takes place in weight. The arguments he founds upon these observations are to the effect that such indispositions are not direct results of teething, but arise from the action of extraneous causes, to the influence of which infants are particularly susceptible at the time of dentition.

Dr. Skinner.—Assuming the statement of our correspondent to fairly represent the circumstances of the case, we think he has just grounds of complaint. But no useful purpose could be served by publishing his letter.

A CASE OF INVERSION OF THE UTERUS.

To the Editor of THE LANCET.

SIR,—On the night of March 5th last I received an urgent message to go to a labour case (a primipara) where a midwife was in attendance. On my arrival, about a quarter of an hour after being sent for, I found the patient lying on the sofa, and in what I thought a dying condition. On examination I found the uterus inverted and outside the vulva, with the placenta attached to the fundus, the whole tumour being about the size of an ordinary football. There was no hæmorrhage when I saw the patient, but there was a large pool of blood on the floor where the child had been born. The midwife assured me "that she made no undue traction on the cord, that the labour progressed beautifully," and in about ten minutes after the baby was born that she felt what she at first thought was the placenta, but afterwards took to be another baby. Dr. Howard, for whom I had sent, now arrived, and I then peeled off the placenta, and he pressed the uterus gently back into the vagina. We succeeded in getting the fundus through the os internum. Stimulants and hypodermic injection of ether and ammonia were employed to revive the patient, but without success. I then found on examination that the uterus had again partially protruded, owing to non-contraction. Having replaced it, I had the satisfaction of feeling the uterus contracting well on my hand. In spite of all our efforts, however, the patient died in about ten or fifteen minutes after the uterus was returned.

I have no doubt, and I think Dr. Howard agrees with me, that the cause of death was the severe shock to the system, the amount of hæmorrhage not appearing to be sufficient to warrant its being attributed to that cause. As to the cause of inversion, on consultation with Dr. Howard, we came to the conclusion that we could not blame the midwife, for her assertion of not having used traction was borne out by others, and the length of the funis being normal, there only remains the flabby condition of the uterus and the laxity of the parts to account for the fatal termination of the case. A good deal has been said as to the advisability or non-advisability in such cases of returning the uterus before separating the placenta. I may say that in this case no hæmorrhage followed the peeling off of the placenta, but that may be on account of the extreme collapse of the patient. If another case came under my notice I should feel inclined to follow the same course as in the above instance. I am, Sir, yours faithfully,

Wren's Nest House, Shaw, April 7th, 1884. ANDREW SPEARING.

CASE OF POLYPUS OF THE RECTUM.

To the Editor of THE LANCET.

SIR,—I beg to send you the following case of some rarity. I was called in to see a boy aged ten years, who was supposed to be suffering from prolapsus ani. On making an examination I found the anal aperture occluded by a tumour very much the size and colour of a pickled walnut. It had evidently descended outside the sphincter ani during defecation. I took hold of it and drew it downwards, and found it attached to the posterior wall of the rectum by a pedicle three inches long. I drew it still further downwards, and ligatured the base of the pedicle with silk, and snipped it off with a pair of scissors; and the patient got quite well in a few days. The dark colour of its substance was due to hæmorrhage, owing no doubt to the repeated constrictive action of the sphincter ani. It was distinctly fibrous in its structure.

The case is instructive as showing the absence of marked symptoms while retained inside the rectum; but when it descended outside the sphincter, the symptoms were constant desire to micturate and severe colic. I am, Sir, yours truly,

ROBERT HOWARD, L.K.Q.C.P.I., &c.

Hyde, near Manchester, April 14th, 1884.

CONSULTING-ROOM DIAL.

To the Editor of THE LANCET.

SIR,—I shall be glad if any of your readers can give me the maker's name of a consulting-room dial with movable hands for recording the time of one's return, &c.—I am, Sir, yours faithfully,

W. H. CHEETHAM.

The Poplars, Guiseley, near Leeds, April 10th, 1884.

DEPILATORY.

To the Editor of THE LANCET.

SIR,—Would any of your readers kindly suggest a remedy for removing hairs from the skin? I am, Sir, yours truly,

April 11th, 1884. M. B. C. M.

COLOUR BLINDNESS.

As a result of an official investigation in the United States, it would appear that of 15,000 *employés* on the Pennsylvanian Railway, 25 per cent. were seriously affected with colour blindness.

Mr. Robert Howard.—We recognise no right to the title in question but that founded on the possession of a degree in medicine granted by a university, and we think our correspondent will find this to be sound law as well as good taste.

"THE AIR TAMPON."

To the Editor of THE LANCET.

SIR,—We have no doubt Mr. Buckston Browne has received many expressions of unqualified approval from surgeons of the highest repute as to the value of the air tampon, nor do we question that it has been described by standard works on the subject since 1877. Our point is, that the air tampon is our invention, and was introduced to the notice of the profession by us many years before it was brought forward by Mr. Buckston Browne. It is not our fault that Mr. Buckston Browne was unaware of our invention; we did all we could to make it known. The tube was in the International Exhibition of 1873; it was noticed, with illustrations, in the *British Medical Journal*, August 2nd, 1873; it was in our catalogue in 1874; and it was known to the surgical staff of King's College Hospital. Mr. Buckston Browne claims, however, that his tube differs from ours "essentially," as our tube is intended to arrest hæmorrhage by the application of cold, whilst he employs air pressure for the same purpose. This is an error on Mr. Buckston Browne's part, as the application of pressure, whether by air or water, is the "essential" principle of our tube. Five years before Mr. Buckston Browne's notice in THE LANCET, Mr. Bryant, in his "Practice of Surgery," 1872, page 554, thus describes the instrument:—

"Matthews has adapted an indiarubber bag round the tube, which is to be introduced into the bladder empty, and then expanded with air and water. It answers the same purpose as Dupuytren's 'Canule à chemise,' and is probably more efficient."

We are, Sir, your obedient servants,

Carey-street, W.C., April 15th, 1884. MATTHEWS BROTHERS.

W. Sinclair Macdonald (Inverness).—Does the question of our correspondent relate to life policies, annuities, or loans?

A Would-be Doctor should make application to the Registrar of the University named.

Dr. Campbell Black is thanked.

"ACUTE ATROPHY OF THE LIVER."

To the Editor of THE LANCET.

SIR,—A case under the above heading is recorded in your issue of the 5th inst.; but I must say the proof of its being such seems to me very questionable. There was no examination of the brain, and yet the patient had persistent pain in his head from the first, attended with vomiting; and this pain went on till he became comatose. With such symptoms present, I must repeat that the case is, to say the least, open to discussion.

I am, Sir, yours, &c.,

Dublin, April 12th, 1884. HENRY KENNEDY.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir E. Lechmere, London; Professor Corfield; Rev. W. Rowlanson, Wrotham; Mr. King; Dr. Coombs; Mr. H. Semple, Bristol; Mr. R. Freeman, London; Mr. Tallack, London; Dr. Andrew Duncan; Mr. Lingard; Mr. C. E. Smith, Manchester; Mr. Pink, London; Mr. P. H. Kidd, Hartlepool; Dr. Quine, Chicago; Mr. Boley, Sutton-hill; Dr. Munro, Jarrow; Dr. J. Jones, New Orleans; Mr. C. H. Eyles, Gold Coast; Mr. Turner, London; Dr. W. Ewart, London; Dr. Bauham, Sheffield; Dr. J. P. Steele, Rome; Dr. Skinner, London; Mr. Robert Howard, Hyde; Dr. Fisher, Lytham; Dr. Manson, Strathpeffer; Mrs. Gregory, Driffield; Mr. Kerr, Halesowen; Mr. Cole, Exeter; Dr. Pernisch, Scarfs; Messrs. Bell and Bradfute, Edinburgh; Dr. Napier, Glasgow; Messrs. Livingstone, Edinburgh; Mrs. Rahn, Ipswich; Mr. Weeks, Camberwell; Dr. Harvey, Bayswater; Mrs. Needes; Dr. R. Bell, Glasgow; Dr. Kennedy, London; Dr. Barr, Liverpool; Dr. Leibowitz; Dr. More Madden, Dublin; Mr. J. I. Bowes; Surgeon-Major Waters; Dr. Radcliffe Crocker, London; Dr. Wilson, Westal; Mr. Clement Lucas, London; Mr. Moss, Alton; Messrs. Howlett and Co., London; Messrs. Crossley and Co.; Mr. Bury, Hammersmith; Mrs. Wharton, Halifax; Messrs. Austin and Sons, Clifton; Dr. N. Ker, London; Messrs. Lee and Martin, Birmingham; Dr. M'Adam, Edinburgh; Mr. Bell, London; Mrs. Pratt, Cardiff; Mr. Kerr; Mr. Arrowsmith, Bristol; Dr. Duncan, Glasgow; Mr. Webb, Bury; Dr. Denton, Brixton; Mr. Kidd; Mr. F. Le Page; Dr. C. S. Taylor, London; Dr. Oswald Lane, Northampton; Dr. Davy, Halifax; Mr. S. Gamgee, Birmingham; Dr. Macdougall, Cumberland; Dr. Andrew, London; Dr. Elder, Nottingham; Dr. D. C. Black, Glasgow; Mr. A. Franklin, London; Mr. A. Taylor, Hanley; Mr. M'Donagh, London; Mr. Fripp, London; Dr. Campbell Pope, London; Dr. Carter, Billericay; Mr. Godlee, London; Mr. Swale, Leeds; Messrs. Berrall and Co., London; Messrs. Slinger and Son, York; Mr. W. Barker, London; Mr. Carbishley; Messrs. Hawkes and Co., Birmingham; Dr. Wallis, Preston; Dr. S. King, Ilfracombe; Dr. Dawson Williams, London; Mr. Boutflower, Salford; Mr. Clifford Smith, London; Medicus, Leeds; A. B.; Sanitary; M.B., C.M.; Enquirens; M.D.; Anxious; Fides; Excelsior; L.R.C.P., Crawford; X. Y. Z.; Medicus, Barrow-in-Furness; G. G., Little Borough; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Morgan, Birmingham; Mr. Thompson, Liverpool; Mr. Hacoel, Denbigh; Mr. Munday, Bristol; Dr. M'Cullum, Anstruther; Mr. Fitzgerald, Huddersfield; Mr. Cash, Burton-on-Trent; Mr. Newton, London; Mr. White, Wolverhampton; Dr. Watson, Wood-green; Dr. Clark, Folkestone; Dr. Pope, Haling; Mr. Luttichan; Dr. Alexander; Mr. Deighton; Mr. Bingham, Purfleet; Messrs. Robson and Co.; Mr. Wattie, Bellabeg; Dr. Lowndes, Liverpool; Dr. Pritchard; Mr. Thompson, London; Mr. Watson; Mr. Boucher; Mr. Williams, Oxford; Mr. Wall, Wigan; Mr. Whipp, Burton; Mr. Leichterschofen, Homburg; Mr. Aslett, Newark-upon-Tyne; Mrs. Martin, Nottingham; Dr. Loy, Great Ayton; Miss Dance, Lesbury; Mr. Pearson, Chipping Norton; Mrs. Carless, Liverpool; Dr. Kerr; Dr. Forbes, Drumlithie; Dr. Thomson, Pontypridd; Dr. M'Neill; Mr. Spicer; Dr. Tomkins, Manchester; Dr. Gray, Storrington; Dr. Talbot, Poplar; Easiden; A. B., Forest-hill; A. B., Lovells; Henry; Housekeeper, Wilton; R. R. M., Stoke Newington; D., Halifax; A. S., Lower Norwood; Medicus, Guernsey; C. D. R., Stroud; A. D. J., London; A. B. J.; F. B., Gainsborough; Medicus, Stow-on-the-Wold; J. W. A. P.; H. S. B., Enfield; C. F., Camberwell; F. A. N., London; F. H. L., London; N., Edinburgh; M.B., London; M. M.; A. B. C., London; Medicus, Leamington; Felix; Deltoid; W. G.; Peritus, Bristol; P.; Practitioner; M. E.; W. G., London; R. H. H., Aylesbury; &c. &c.

Scarborough Gazette, Diamond Fields Advertiser, Liverpool Daily Post, Kimberley Daily Independent, Richmond and Twickenham Times, Burnley Mid-Weekly Gazette, Aberdeen Weekly Free Press, Chelmsford Chronicle, Burton Chronicle, Hertfortshire Mercury, Bucks Herald, Essex Telegraph, Hampshire Advertiser, Port Elizabeth Telegraph, Continental Times, Scotsman, &c., have been received.

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